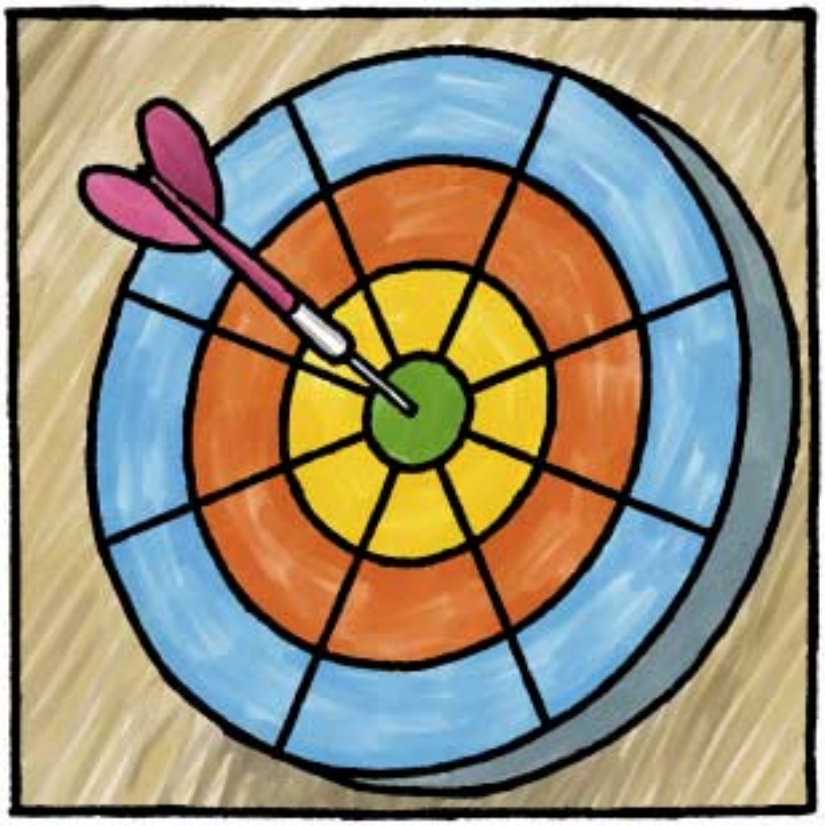
Targeting the Environmental Investment Challenge in South Eastern Europe



REGIONAL ENVIRONMENTAL CENTER

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Targeting the Environmental Investment Challenge in South Eastern Europe

Written by
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REGIONAL ENVIRONMENTAL CENTER

About the REC

The Regional Environmental Center for Central and Eastern Europe (REC) is a non-partisan, non-advocacy, not-for-profit international organisation with a mission to assist in solving environmental problems in Central and Eastern Europe (CEE). The REC fulfils this mission by promoting cooperation among non-governmental organisations, governments, businesses and other environmental stakeholders, and by supporting the free exchange of information and public participation in environmental decision making.

The REC was established in 1990 by the United States, the European Commission and Hungary. Today, the REC is legally based on a charter signed by the governments of 28 countries and the European Commission, and on an international agreement with the government of Hungary. The REC has its head office in Szentendre, Hungary, and country offices and field offices in 16 beneficiary countries which are: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Poland, Romania, Serbia and Montenegro, Slovakia, Slovenia and Turkey.

Recent donors are the European Commission and the governments of Austria, Belgium, Bosnia and Herzegovina, Canada, the Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Italy, Japan, Latvia, the Netherlands, Norway, Poland, Serbia and Montenegro, Slovenia, Sweden, Switzerland, the United Kingdom and the United States, as well as other inter-governmental and private institutions.

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Foreword from the European Commissioner for the Environment

In recent years, the countries of the Western Balkans have made considerable progress with stabilisation and reconciliation, internal reform and regional cooperation within the framework of the Stabilisation and Association Process (SAP). The region is becoming more stable and its countries are engaged in ambitious political and economic reform programmes based on European Union law and practice.

One major challenge for those countries that now have the real prospect of accession to the European Union is meeting the EU's environmental requirements.

Alignment with existing EU legislation and compliance with new standards requires substantial financial resources and well-targeted allocation of often very scarce public funds. Drawing on its past experience with enlargement, the Commission always stresses that candidate countries need realistic long-term strategies for implementation of EU legislation. They should also mobilise significant domestic and foreign financial resources — especially private funding — to ensure compliance. In this context, the process of identifying, preparing, financing and implementing the many environmental investment projects needed for EU membership is crucial.

In addition, experience shows that environment ministries in candidate countries have traditionally not been responsible for identifying compliance gaps and preparing detailed investment plans. They have had to face the same difficulties in preparing concrete and realistic implementation strategies as those the countries of South Eastern Europe are facing now.

So I welcome this clear analysis of environmental infrastructure investment planning in the South Eastern Europe countries. It should assist them in developing the right strategic approach towards achieving our environmental objectives and help them move closer to the European Union.

Stavros Dimas
European Commissioner for the Environment

Foreword from the REC Executive Director

It is with great pleasure that I present this publication to the beneficiaries, donors, partners and friends of the Regional Environmental Center for Central and Eastern Europe (REC).

Since the endorsement of the Priority Environmental Investment Programme for South Eastern Europe in 2003, the REC has been continuously working to strengthen the institutional capacity in South Eastern Europe (SEE) to address the environmental investment challenge. In parallel, the specific conditions of the region have been analysed to better address the needs for — and remove barriers to — a more efficient financing process.

The most important part of this publication is focused on the key actions to be taken by the SEE governments, municipalities, international donors, international financial institutions and other key environmental players in order to overcome the obstacles and to respond better to the investment challenge. Information is provided on foreign sources of financing available, with the understanding that they can play an important, catalytic role, but the main effort in environmental financing resides within the countries themselves.

I do hope that the proposed way forward for securing domestic sources of finance, improving the efficiency of project preparation and the conditions for borrowing, as well as for enabling private sector involvement, creates a good platform for coordinated joint action by the national and international environmental stakeholders.

I would like to extend my gratitude to the European Commission for making possible this publication and for the valuable guidance in its development. I would also like to express my thanks to the authors and all contributors to this book: the ministries of environment in SEE, municipalities in the region, local consultants, international peer reviewers, and the staff from the head office and country offices of the REC.

Wishing quick progress and impressive short-term results in addressing the investment challenge in South Eastern Europe,

Marta Szigeti Bonifert
REC Executive Director

Executive Summary

The purpose of this publication is to provide a comprehensive analysis of the situation of environmental infrastructure investment planning in the SEE region, which includes Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Serbia and Montenegro, and Kosovo (territory under UN administration). Through this publication, a strategic approach towards enhancing the process of developing and implementing environmental infrastructure projects is proposed.

The book was prepared by Joanna Fiedler and Eniko Artim of the Regional Environmental Center for Central and Eastern Europe. It was funded by the European Commission (CARDS regional programme) and builds upon accumulated knowledge and experience of the REC in assisting SEE ministries under the auspices of the Priority Environmental Investment Programme for South Eastern Europe (PEIP).

Thus, this book intends to:

- analyse major changes in national policies which can influence investment project preparation and implementation;
- present the investment challenge for SEE countries resulting from implementation of key EU investment heavy directives;
- give an overview of the status of national legislation and organisational planning for supporting implementation of these directives;
- highlight challenges in relation to critical conditions for implementing investment projects;
- present the updated list of priority environmental infrastructure investment projects as a response from the SEE countries;
- analyse domestic and foreign sources of finance available for investment projects in SEE; and
- identify conclusions and set the way forward for actions leading to implementation of more infrastructure projects in SEE.

The publication is of primary interest to:

- decision makers responsible for strategic environmental investment planning in SEE, who should use the publication as a supportive tool when presenting the regional context for investment planning;
- donors and international financing institutions (IFIs) to whom the publication can serve as an important tool supporting the design of their assistance programmes for the SEE region; and
- all other stakeholders interested in developing infrastructure investment projects.

Setting the scene

The SEE countries are currently in the process of implementing reforms to fulfill the objectives of the Stabilisation and Association Process. In order to be capable of implementing more environmental investment projects, the tasks lying ahead include: strengthening administration capacities with clearly defined responsibilities; implementing and enforcing the environmental acquis; determining investment needs; developing financing strategies and implementation plans; allocating adequate resources as a result of the decentralisation process; improving capacities for water, sewage and waste management; integrating environment into other policies; applying the polluter-pays principle. The economic, legislative and institutional reforms currently being implemented play a major role in this process. Some of the instruments for stimulating implementation of reforms involving environment are economic instruments, environmental impact assessment, and environmental information systems.

With regard to the development of financing sources for environmental improvements, prerequisite include the strengthening of environmental institutions and policies, development of public support for environmental protection, and estab-

lishment of effective, well-enforced pollution control instruments. These will provide strong incentives for economic actors to undertake environmental protection initiatives, including investment in pollution reduction. Financing environmental investment projects from domestic sources is still in the early stages of development in SEE countries. Apart from the Croatian environmental fund, no other tool in the region exists which could efficiently support the upcoming investment challenge in relation to implementation of EU legislation. With regard to foreign finance, several sources are obtainable to SEE countries; examples include the European Commission (EC); multi- and bilateral donors; IFIs; and, to a limited extent, foreign commercial banks; however, the main issues are accessibility for capital investments and the availability of well-prepared bankable projects ready to be financed.

In a situation of scarce public funds and continuous struggles with economic and social needs, the introduction of well-targeted expenditure programmes can be a way to efficiently use scarce resources. Through special expenditure programmes, the needed finance for investment projects can be ensured. These expenditure programmes can be managed by both public and private agencies, e.g. by environmental funds. Ministries of finance however, following IMF guidance, often hinder ministries of environment in their efforts to establish such environmental funds. The rationale is the fear that these instruments will lack sound and transparent expenditure management. As a result, discussions often focus on the institutional setup of such instruments, i.e. the question of whether they should be budgetary or extra-budgetary. Sound public finance should be the key element applied under any institutional setup, and this needs to be assured by transparent programme operations.

The infrastructure investment challenge

Implementation and enforcement of the environmental acquis requires substantial financial resources which must be efficiently allocated. In order to identify where the financial challenge will be the most significant for environment, investment needs for implementing EU legislation needs must be identified. When analyzing the state of environment in SEE countries, the deficiencies in environmental infrastructure become visible. Experience from the new EU member states shows that development of realistic national long-term strategies for implementation of the environmental acquis is a crucial step to aid in mobilising domestic and foreign sources of finance. In the case of the new EU member states, EC and foreign assistance covered a small proportion of total needs. It has been estimated that candidate countries need to spend an average of two to three percent of GDP over several years to achieve full implementation. Aside from the need to invest significant amounts in implementation of the environmental acquis, this also brings about considerable economic benefit in terms of costs saved through better state of environment and human health.

Experience from the accession process shows that certain environmental directives will be especially difficult to implement due to the amount of investment required. For the purpose of this publication, the following directives were selected as investment-heavy in the air sector:

- the Air Quality Directive (96/62/EC) with daughter directives;
- the Large Combustion Plant Directive (2001/80/EC); and
- the Integrated Pollution Prevention and Control Directive.

Since the 1970s, EU air-quality policy aimed at controlling emissions from mobile sources, improving fuel quality and promoting integration of environmental protection into transport and energy sector policies. Different methods of reducing exposure to air pollution applied in the EU, such as legislation applying also to the reduction of cross-border pollution, and development of the thematic strategy Clean Air for Europe (CAFE).

Considering EU waste-related legislation, the following directives pose a significant challenge for the public sector in SEE; their implementation is linked to infrastructure development and upgrade:

- the Landfill Directive (1999/31/EC);
- the Incineration Directive (2000/76/EC);
- the Hazardous Waste Directive (91/689/EEC); and
- the Sewage Sludge Directive (86/278/EEC).

EU waste-related policies aiming at waste minimisation are based on the waste management hierarchy through new waste-prevention initiatives, better use of resources, and encouraging a

shift to more sustainable consumption patterns. This effort is closely linked with improving manufacturing methods and influencing consumers to demand greener products. Selected waste streams such as packaging, end-of life vehicles, batteries, electrical waste and electronic waste are treated as priority. When waste cannot be recycled or reused it should be safely incinerated, with energy recovery and landfilling last resorts only. Certain types of waste, such as used tires, are banned from landfills, and there is a goal to reduce quantities of biodegradable waste.

In the water sector, the following investment-heavy EU directives were selected:

- the Drinking Water Directive (98/83/EC);
- the Urban Waste Water Treatment Directive (91/271/EEC);
- the Dangerous Substances in Water Directive (76/464/EEC);
- the Nitrates Directive (91/676/EEC); and
- the Bathing Water Directive (76/160/EEC).

European water policy aims at cleaning polluted waters and ensuring the maintenance of good water quality. The New Water Framework Directive is a planning and institutional framework to guide implementation of water sector directives, thereby setting objectives for water protection. The directive coordinates the objectives of all detailed directives which deal with particular sources of or particular pollutants in surface water and groundwater. The new policy emphasises the polluter-pays principle, proper pricing of water, and encourages public participation.

For certain directives, compliance upon a date of accession may be impossible to achieve, and candidate countries can therefore negotiate a transitional period. For this, development of the Directive Specific Implementation and Financing Plan is required. These plans assist in planning implementation of all directives, and not only when the transitional period is sought.

Targeting investment challenges

Targeting infrastructure investment challenges is a very complicated process, requiring the involvement of many stakeholders. It implies the mapping of infrastructure to be developed to comply with legal requirements, identification and mobilisation of adequate financial resources, and the final project's implementation. Experience from new EU member states shows that the majority of risks associated with successful project implementation comes during the early stages of project development, when the project proponent is developing a proposal for funding. Moreover, the present challenge for the SEE countries is preparation of projects which meet legal requirements and which can attract external funding. Successful completion of any infrastructure project also depends on proper project implementation during construction time; these issues are outside the scope of this publication, however.

The responsibility for targeting the investment challenge is shared between national and local levels. There are certain pre-conditions which must be met at the national level for project proponents to successfully develop and implement projects. While the national level should focus on programming for compliance with national legislation (including creating relevant legislative framework; identification of projects; effective management of project pipelines; project prioritisation; identification and mobilisation of funding sources; and monitoring of implementation results), local project proponents should focus on designing and implementing relevant projects which would lead to compliance with the legislation. This process includes identification of needs; concept development; project preparation; identifying and attracting sources of finance; and effective, efficient implementation of projects.

Government planning for legislative and institutional framework

The main role of government in creating an enabling environment for financing environmental investments is to establish the policy, regulatory and institutional framework within which different resources (i.e. user charges, capital markets, local budgets, and private finance) can be mobilised in a complementary and cost-effective way. Project proponents expect that governmental planning results in clear policies and institutional frameworks which support their efforts and give guidelines for project development. Therefore, the important elements of the government planning for implementing environmental infrastructure projects are:

- legislation which specifies objectives to be achieved;

- developed institutional structures which will assume responsibility for planning, implementing, enforcing and monitoring the legislation in place; and
- developed strategies and programmes which will guide project proponents and identify sources of funding or co-funding.

Transposing and implementing EU directives is a lengthy process. The first step is harmonisation of national legislation with EU directives; the subsequent step is implementation of the transposed directive, which entails achievement of full compliance with its requirements. In order to implement a directive successfully, the tasks, responsibilities and competences of all parties involved must be clearly delegated, and appropriate capacities of these institutions built. Implementation documents include development plans, strategies and programmes describing the overall objectives in the field of environment and the required means to achieve them. These documents provide the national framework for implementing the requirements of the transposed directives. They assess needs and analyse the gap between the actual situation and the stipulated conditions, describe sets of actions and investments, and delegate responsible bodies for implementation.

Aside from developing proper implementation documents, it is of great importance that clear roles in implementation are defined for ministries and local authorities. The clear allocation of responsibilities can ensure a smooth implementation process. Furthermore, such definition helps avoid duplication in administration procedures and confusion in accountability. In order to ensure compliance with the requirements, systems of permitting, monitoring and reporting must be developed and become operational on the national level.

Analysing the status of transposition of the EU investment-heavy directives shows that SEE countries are at an advanced stage in the transposition of framework laws or expect to finalise transposition in the near future. Full transposition of directives is still to be completed through issuance of bylaws and regulations. General implementation documents exist in almost all countries concerned in the form of national development and environmental plans, programmes and strategies. Sector-specific documents are often under development.

As some implementation documents had been prepared earlier without taking EU requirements into consideration, revision according to the provisions of community law is needed. In most countries, responsibilities for planning and implementing directives have already been assigned. Often, responsibilities for implementation are shared among several ministries and institutions. As experience from new EU member states shows, this is usually the case, as environment is a very complex sector to handle. Therefore, special attention should be paid to effective inter-ministerial coordination and collaboration with regional and local authorities.

Following the assignment of responsibilities, the capacity of the nominated ministries to fulfill obligations must be assessed. Capacity is needed not only in terms of staff, but also in terms of employee qualifications, expertise and experience. There is a need to assist local and regional authorities, who in most cases are responsible for implementation and for drafting integrated local environmental strategies which will set objectives to target pollution on a local scale.

One key issue in implementation of key investment-heavy directives is the development and management of investment project pipelines; this task requires substantial administrative capacity and coordination among public entities. Effective pipeline management provides a systematic mechanism for identifying and evaluating all relevant projects needed for compliance with specific directives.

Project identification

SEE countries are in the process of developing sectoral strategies for identifying objectives to be achieved. This is followed by development of more detailed plans, e.g. national waste management plans or water management plans, whose role is identification of projects leading to implementation of strategies. At this stage, developing lists of identified projects and managing them effectively is important. Cooperation among different administrative levels and with local project proponents in this process is crucial.

Identification of environmental infrastructure projects to achieve compliance with EU directives is in the early stages of development in the SEE countries. Nevertheless, there are differences among countries and sectors. In the case of the air sector and improvements to large combustion plants, the implications for investment in environmental protection for this sector were assessed within the scope of the Development of Power Generation in South East Europe project. This pro-

ject provided assessment of emission levels for each power plant in the region; identification of all environmental control technologies suitable to the characteristics of power plants and environmental standards; and estimation of environmental compliance costs for each power plant. For the water sector, there are initiatives on project identification based on river basin management, such as DABLAS Task Force, which has identified and has conducted prioritisation of investment projects for the Danube catchments area. The initiative can provide useful examples and lessons learnt for decision makers in developing water-related strategies with project identification. Finally, the PEIP programme aims at identification and prioritisation of environmental infrastructure investment projects for air, waste and water sectors.

As evidenced by the status of existing infrastructure identification, much more must be done in relation to improving databases and/or inventories of existing infrastructure and environmental problems. This challenge exists especially in building up inventories of landfills, legal and illegal, which would be the basis for regional planning for waste management solutions. In water and wastewater connections, signs indicate that, while water supply networks are relatively developed (albeit generally in poor condition), a significant challenge lies in upgrading sewage networks and constructing wastewater treatment plants.

Following identification of infrastructure projects is prioritisation. Prioritisation based on objective criteria has proven successful in justifying promoted projects to donors and IFIs. Additionally, the prioritisation process allows identification of the most valuable projects, through which objectives may be achieved most efficiently. PEIP assisted SEE countries in conducting prioritisation exercises. Prioritisation was done based on agreed criteria and led to identification of the priority environmental projects influencing the regional environment and complying with EU directives. Project identification and prioritisation is part of the accession-driven environmental investment planning process, which leads to development of specific financing plans and strategies.

Project identification on the micro-level refers to the ability of a municipality to identify all environmental infrastructure improvements needed to comply with legislation and to provide them sufficient priority among other sectors' infrastructural needs (e.g. roads), so that environmental infrastructure improvement projects may receive financing. This is important in the context of decentralisation, which gave the municipalities crucial responsibilities related to providing environmental services. Several tools have been developed which can support the project identification process; examples include Capital Improvement Planning (CIPs) and Local Environmental Action Plans (LEAPs). Preparations for EU accession are also bringing regional development issues into the context of environmental infrastructure investment planning. The regional development process can influence infrastructure investment planning through regional development planning, implementation of regional policies, and creation of regional-level government. The regional approach is included in the EU Cohesion Policy and is the basis for distribution of EU financial assistance to EU regions via Structural Funds and to the national level via the Cohesion Fund. Although regionalisation is still far in the future for SEE countries, it should be considered while planning for infrastructure projects, which usually take many years to complete.

Project formulation

Project formulation is the stage when the project concept/idea is shaped in a way that can be assessed by potential donors and authorities giving licences; and be ready for further preparation and feasibility check-up, as well as assessed as to whether the proposed project will solve the environmental problem at hand. PEIP programme authors worked with 33 pilot locations on project formulation; these locations were chosen together with environmental ministries to receive technical assistance for project development. This work resulted in several lessons learned which represent the current status of challenges for local project proponents in developing infrastructure projects. In most cases, feasibility studies and other documents exist, and project proponents are aware of the environmental situation. However, project proponents do not feel any pressure from the state to implement projects; this derives from poor enforcement of environmental regulations.

In general, an integrated approach to preparing projects does not exist, meaning a lack of effort in integrating an investment project into large-scale systems such as integrated waste management systems. In many cases, project development is hindered by the lack of responsible staff appointed to work on project development. Environmental projects were given low priority by decision makers, and therefore environmental authorities having difficulty in receiving support

for project development is a common phenomenon. Detailed project cost estimates are often lacking; charges are insufficient in providing cost recovery. Project proponents often exclude additional incidental costs in their calculations, and opportunities to implement low-cost measures for pollution reduction or to develop brownfield projects is overlooked. Frequent technical obstacles hindering project formulation include unclear ownership of the plants or land that prohibits project promoters to move the project forward.

Obstacles to municipal financing of projects

Although there are differences in the region ranging from Croatia, a candidate country wherein actual municipal environmental lending taking place, to Kosovo, where local self-governance is hindered by administrative power imposed by the international community, some obstacles to fulfilling municipalities' legal obligations in the environmental sector can be identified for all the countries.

Hindering factors include revenue and expenditure assignment mismatch. This means essentially that mandatory municipal tasks are underfunded or not funded at all. Low financial capacity is dramatic in its ability to prevent local investment in any infrastructure, including environmental infrastructure. This is exacerbated by a certain "donor seeking" mentality at the municipal level that is seemingly coupled with a truly rational fear of debt. Some debt and debt service limits are too stringent in comparison with the magnitude of potential projects, ignoring the reality that these investments can make returns for up to 30 years.

With regard to policy obstacles, municipalities and their political associations have close to zero lobbying power on the national level. Consequently, laws clearly in municipalities' interest can be delayed or simply ignored. At the municipal self-government level, environmental investment is of lower priority than transport infrastructure and economic development (i.e. job creation) projects. Municipalities face the additional challenge in creating large enough projects to achieve economies of scale.

Other barriers to project development are insufficient environmental enforcement and imposition of fines and fees to encourage project development and discourage pollution. In some cases, there is uncertainty regarding ownership of certain environmental assets, particularly if a group of municipalities engages in a joint project.

How to overcome obstacles

Certain key elements can assist municipal project proponents in developing environmental infrastructure projects.

Cooperation with national authorities is critical for successful implementation of the investment infrastructure project. It is important to ensure that the proposed project is part of national/regional strategies and plans. In order to achieve this, needs, problems and proposed solutions should be well communicated to the national authorities. Meanwhile, national authorities should enable proper incentives, e.g. tax incentives, environmental funds and legal framework for municipal associations, to stimulate development of environmental infrastructure.

Decentralisation effects the provision of environmental functions. Once the lower levels of administration receive new functions in providing environmental services, the challenge to identify, develop, prepare and implement bankable projects is also shifted to their level. Therefore, it is important to analyse the status of decentralisation in the region and expectations in relation to new functions and preparation of environmental infrastructure projects. Along with the responsibility for service provision in water, solid waste and wastewater sectors comes the ownership of the assets providing these services. If a municipality is responsible for service provision and owns current facilities (or may own future facilities), it must propose bankable projects that cover operational and depreciation costs. In all SEE countries, the state retains the right to set discharge standards, construction permit procedures, etc.

Environment infrastructure investment projects cannot be seen as separate from overall local government budgeting. Even when grants or loans have been provided, the municipality still must contribute to the required financing. Additionally, resources must be gathered to ensure cost recovery. Interaction between local government budgeting and investment project development planning is therefore important.

Cost recovery and application of the polluter-pays principle are two of the most challenging issues to overcome in SEE, and their importance is often underestimated. When applying for grant money, project proponents do not see the challenge of achieving cost recovery. Moreover, they face difficulties in explaining to service customers why, despite receiving a grant, higher charges for service must be paid. In applying for a loan con-

sideration must be given not only to cost recovery but to raising tariffs in order to balance costs in paying back the loan.

The social impact of implementing investment projects is a key aspect to take into account when formulating environmental infrastructure investment projects; this is especially relevant in formulation of projects in the water, district heating, and power sectors. Improving quality of services for citizens such as better service, more reliable supply, and less wastage, can only happen if the industries providing service are returned to sound financial footing. This means that service providers will in turn introduce higher end-user prices in addition to more efficient billing and collection. The burden on households as a result of environmental infrastructure improvements will be significant.

It is important to calculate the current affordability to customers who will be affected by service extension, construction, or infrastructure upgrade. In addition, future affordability must be estimated, and this will be affected by the increase of tariffs for cost recovery. The level of social protection needs to be assessed as well and, in order to estimate future affordability, information on future income growth and on future demand of utility services must be gathered.

Environmental financing strategies can be a useful tool to put issues of cost recovery, affordability and policy design into practice. These strategies aim to organise information in a form that facilitates decision making in setting policies and targets, creating or strengthening institutions, or mobilising sources of financing. Environmental financing strategies are used for assessing total investment needs of alternative policy targets; bringing about practical implementation programmes based on economy and affordability; identifying investment projects; building short- to medium-term project pipelines; identifying policies and measures necessary to ensure effective financing of project pipelines; supporting claims of environmental and other ministries responsible for municipal services in the public budget; and supporting the country's requests for donor and IFI financing.

It is of great importance to fit the size of project to current and future needs. Updated population data and reliable forecasts of population growth are necessary to proper project sizing. Nevertheless, efficiency of service use should be ensured before committing to investment funding. It must be taken into account that, when tariffs are increased, customers will use less of the service; analysis of the impact of tariff policy on service use must therefore be conducted. The economy of scale in proposed solutions can also play an important role. One way to ensure economy of scale is to create associations of municipalities developing regional solutions. Such efforts are severely hindered by issues of joint property ownership, expense sharing, and other costs that are unrecoverable from co-owners. Regional experience suggests that joint service associations require specialised, complex legislation, since municipalities give up fundamental rights, such as tariff setting and property ownership.

When locating infrastructure, project proponents can opt for a "centralised" approach, where all elements of the infrastructure are placed in one location, or a "decentralised" approach, where elements of the infrastructure are placed in different locations. In general, there is no ready formula for success in a given project location, as conditions differ on each project. Nevertheless, the chosen project location can influence many other areas of municipality activities such as economic development, biodiversity protection and unemployment. Locating infrastructure projects stimulates the NIMBY ("not in my back yard") Syndrome from the local community site, which can be handled by informing and involving the public in the selection of location for the project.

Once the project is formulated, an important activity is identification of possible financing sources. Looking at external sources of finance, other than the project proponent itself, the options for the SEE region include national government sources; grants from the EC and/or bilateral donors; loans from commercial banks and/or IFIs; and private-sector involvement.

Developing bankable projects

When discussing bankable projects, it is important to highlight in which situations borrowing is seen as a good choice for municipal infrastructure development. If financing a project from current budget and local taxes, the investment project will depend on revenues gathered; if financing from loans, the project proponent will have immediate access to capital, and the loan payback period is spread over many years. In loan financing, the payback cost is included in charges; therefore real customers contribute to paying for the service. Costs of maintaining the infrastructure to be upgraded are usually quite high. In cases of

quick access to capital, upgrades can be implemented quicker, and costs of operation and maintenance can in effect be reduced.

Where legally allowed, borrowing capacity is not fully used anywhere in SEE. Only a few loans from IFIs have been observed, and few examples of domestic borrowing in the region (e.g., Croatia and Serbia and Montenegro) exist. The dearth of actual municipal borrowing indicates that, despite overwhelming needs in the water, wastewater and solid waste sectors, and clear municipal responsibility to provide these services, incentives and sanctions have been insufficient to trigger a lending and construction boom due to weak financial capacity at the municipal level together with other priorities that seem more urgent and expedient. Regional experience suggests that municipal operational surpluses are rare and, if they do exist, are used to fund more immediate projects rather than debt service. Instead of producing operational surpluses, municipalities often operate with hidden deficits and unpaid bills.

When borrowing is a desirable solution, the fiscal space for infrastructure borrowing must be assessed. "Fiscal space" refers to the budgetary amount that a government must provide for a desired purpose without prejudice to the sustainability of its financial position. As a result, new infrastructure investments should undergo rigorous evaluation of costs and benefits, including operation, maintenance, and capital costs. Concerning the marginal rates of return, in some cases upgrade and maintenance spending on existing infrastructure is a more viable alternative to new investments. In any case, governmental spending on investments should be considered within the projected medium-term macroeconomic framework. If any overspending related to the planned baseline scenario occurs, it should be compensated by the reduction of less productive planned expenditures. Although fiscal space is an important factor, the true challenge lies in preparing a well-developed and bankable project. Each country should consider its fiscal space before entering into any new loans.

Municipalities may borrow for capital improvement purposes in most entities, though in several, approval and review of loan applications is subject to interference by various ministries, and in some cases, government decision. The debt service limit varies between five and 20 percent of revenue; however, definition of available revenue and the context of each political system varies significantly, so direct comparison of these limits should be made with great caution. Borrowing in foreign currency or from foreign banks seems to draw more oversight from higher-level organs such as finance ministries. Communal enterprises in most entities, under the direct control of municipalities through ownership or under their influence as price-setters, may borrow directly for capital projects. Sovereign guarantees are rare and are mostly used to support borrowing from IFIs that require such intervention.

The issue of municipal default is important to address. This refers to the inability or unwillingness to pay a debt or other obligation similar to debt; default refers to those cases in which a municipality borrowed or assumed a long-term obligation and missed a payment deadline by a certain number of days. The question of what happens in cases of municipality debt default is important not only to the municipality's future, but also to the national government and the banking sector. The risks and consequences of "bad" borrowing by municipalities are important considerations for policymakers in the executive and legislative branches. Furthermore, the effect of municipal default has international implications and could cause a wave of domestic lobbying that forces policymakers to respond. While designing a response to the risks associated with municipal default and financial stress, the importance of environmental projects reinforces the need to find a way for municipalities to borrow in rational fashion while protecting public assets, public services, and the health of the banking system.

If a municipality has a project of interest to a lender, bank procedures are in place to handle municipalities as clients. Nevertheless, in countries with limited experience in working with banks, there are key obstacles to efficiently approaching a bank. Banks have a financial interest in assisting clients to process paperwork and to present financial information in such a manner that credit committees and bank management understand them. Agencies outside of municipalities, such as higher levels of government, may slow the loan application process. In cases of co-funding, municipalities may have difficulties in coming up with cash deposits or other assets. Projects can have liquidity problems if loan tranches are made available to borrowing municipalities more slowly than construction can actually progress. This is particularly a problem with multiple donors (e.g. combinations of loans and EU grants, national government grants) who are unaware of delays in construction and initiation of

service that may be caused if municipalities lack management skills. The municipality may pay excess availability fees to the bank while it awaits funding from another donor in order to achieve a milestone needed to draw down the next loan tranche. Project proponents may need to demonstrate that they have been coordinating the project development with other co-funding donors. In some cases, official statements are required.

General observations made in relation to municipal borrowing are the following. Multiyear budgeting should be required in municipalities in order to plan and integrate capital expenditures in the municipal budget. Additionally, municipalities require skills to manage many different donors with divergent issuance schedules and policies.

In addition, regulatory obstacles to sub-sovereign lending make borrowing difficult. Some local commercial banks in the surveyed entities cannot assess the full risk of financing environmental projects and very much confused about the permitting process and technical issues; such banks therefore seek guarantees and/or property liens, rather assisting clients in setting up solid financial arrangements. In contrast, IFIs invest significant amounts in technical assistance but have thresholds that are rather high compared to project size (e.g. EUR 5 million in the case of the EBRD).

Setting tariffs is a technical skill missing in most SEE municipalities. Full cost-recovery tariffs must be developed in relation to income levels and collection levels expected for that tariff level; this means that tariffs should be set according to expected costs, but "discounted" by the expected collection level. The level of collection is influenced by the affordability of fees charged for water, wastewater and solid waste services. Setting the proper level of tariffs is a challenging task, thus regulators should be proactive in assisting the municipal level to set fair tariffs, rather than acting as authorities passing judgment over difficult decisions.

Furthermore, conditions and sanctions upon non-payment of debt are important issues to consider in borrowing; these are covered in contracts, but enforcement of contract clauses through legal action takes time, and a municipality's public health and safety functions must not be endangered. Advance clarification as to whether the approval of the loan implies that the ministry guarantees the loan, whether the ministry will intervene to help pay the loan or will intercept transfers to the municipality, etc., is vital.

Response to the challenge: List of priority projects

Building lists of projects which present a harmonised approach towards investment planning is one of the key tasks for the SEE countries. Lack of such an approach was a significant barrier for the donor community to deliver assistance which would target actual environmental priorities over randomly proposed project ideas. The exercise of developing a regional list of environmental priority projects (or the PEIP list) was seen as a very important step in starting this process. The PEIP list of priority environmental infrastructure investment projects is a response of the SEE countries to the need to comply with the EU key investment-heavy directives. The role of the PEIP list is to stimulate the process of implementing more infrastructure projects in the region.

On one hand, the practical result of the project list is that priority project concepts can be shown to the donor community. On the other, the process launched and implemented by the PEIP, though the active participation of the SEE stakeholders, allowed for transfer of expertise on developing and managing lists of projects for compliance. At present, the PEIP list is the only list extant in the region which covers all SEE countries in the air, waste and water sectors. The list is a "living document," meaning that the status of the projects in November 2005 is presented. The PEIP list should not be treated as final, but as a selection of projects based on the available information at the moment. The list was first developed in 2003 and updated in 2005. The 2003 list contained 102 investment projects proposals, 77 percent of which were scored as high priority projects. Of these, 14 have been financed, representing 17 percent of the list's high priority projects.

In 2005, the list was updated and now contains 116 investment project ideas, which are presented in detail on the project identification forms. The highest number of projects on the list is from Croatia at 27, followed by Albania at 21. The Republic of Serbia and the former Yugoslav Republic of Macedonia submitted 19 and 18 projects, respectively. Kosovo submitted 14 projects, while the Republic of Montenegro submitted nine and Bosnia and Herzegovina eight. In total, 55 projects are in the water sector, 47 projects in the waste sector and 14 in the air sector. Based on information provided in the project identification forms and initial eligibility screening, projects were pri-

oritised. Those reaching more than 60 percent of the total score were designated as high priority, and 88 percent of projects submitted to the list were scored as such. Of high priority projects, 48 are water sector, 41 waste sector, and 12 for the air sector. High priority projects are those that can bring an important contribution to the state of environment on a regional scale. Implementation of these projects also leads to implementation of the key EU investment-heavy directives. Additionally, these projects have the potential to become a bankable subject of further work with IFIs.

Foreign sources of finance

Securing funds for implementing environmental infrastructure projects is a very complicated process. Investment project proponents can choose from among a wide range of financial products. Project proponents in SEE countries are primarily seeking financing for large-scale infrastructure through grant support, loans and credit guarantees. The preparation of project application for financing is a lengthy and costly process. Of importance is that financial assistance can be obtained from foreign sources not only for capital investment but also for project preparation, such as technical assistance for feasibility studies. A single project can be financed from several sources, and donors have varying purposes and conditions for providing funding. At present, domestic sources of funding are under development in SEE countries and the capability of project proponents to secure considerable own resources is very limited. Therefore, it may be expected that foreign sources of finance from the EC, bilateral donors or IFIs play an important role in financing infrastructure projects in the SEE region.

The EC generally provides assistance for national capacity building and institutional strengthening measures through CARDS with the purpose of creating the legal and institutional framework for infrastructure investment. In addition, by supporting regional initiatives such as the DABLAS and ISG, the EC facilitates the realisation of environmental investment through donor coordination and project preparation. Via these means, EC grant financing is used to a higher degree in achieving increased leverage. Bilateral donors play a relevant role in financing project preparation and contributing capital investment. In this way, the leverage of the grant is increased while simultaneously reducing the amount project proponents must ensure co-financing from own sources. IFIs play a crucial role in financing environmental investments by providing loans, credit guarantees and assistance in project preparation. Project proponents face stringent loan requirements, including technical, economic, social and environmental feasibility criteria the project must comply with. Municipalities face the challenge of ensuring co-financing and large enough projects to meet economies of scale and the minimum project size threshold. Cooperation initiatives between IFIs such as PPC and ISG proved to be a valuable form of facilitating regional environmental investments and supporting project proponents in overcoming these obstacles. Finally, loans at market rates can be obtained from commercial banks as well. However, commercial bank involvement in environmental investment is at an early stage. An increasing form of assistance provision via commercial banks is the on-lending scheme.

Conclusions and the way forward

Although this publication focuses on constructing environmental infrastructure, it cannot be considered as a remedy for all environmental problems in the region. Looking at environmental problems from the broader perspective of sustainable development, the economic and social situation must be considered, especially when the poverty level and/or social aspects of developing infrastructure would burden citizens with additional financial contributions with the polluter-pays principle. Alternative solutions to infrastructure development should therefore also be considered, including minimising the use of resources (e.g. water usage, waste prevention and recycling, energy efficiency); minimising insufficient systems (e.g. reduction of leakage from water supply systems, improving efficient maintenance); and improving technologies in the industries. In this way, the need for the infrastructure can be effectively optimised. Nevertheless, environmental infrastructure development in SEE to improve environmental conditions is sorely needed.

At present, EU accession is a key driving force in environmental improvement. Through fulfilling the obligations of the Stabilisation and Association Process, the SEE countries are moving toward implementation of the EU environmental acquis. This is one of the most demanding to implement, as approximately 300 items of EU environmental

legislation must be transposed to national legislation, and transposition must be followed by effective implementation and enforcement. The SEE countries have begun the transposition process and progress continuously in this direction. In practice, the EU accession process requires that SEE countries invest in environmental infrastructure in many areas. At the same time, EU accession provides the opportunity to establish objectives and standards for the environment; to improve the planning process and management practices; to provide access to best practices; and to give assistance in developing such infrastructure. There is a great challenge in ensuring sufficient financing, as it has been calculated by EC studies that full compliance with the EU legislation required spending of two to three percent of GDP annually in CEE countries. For many SEE countries in which GDP is much lower than that of new EU member states, reaching that level of expenditure presents a major problem. In addition, national sources to finance environmental infrastructure are underdeveloped in the majority of the countries, making mitigation of the social aspects of compliance and recovering costs impossible. Finally, the financial burden will also fall on the private sector, which must spend a considerable amount of money to achieve European standards.

In recent years, the majority of environmental infrastructure projects have been financed through bilateral assistance and IFIs. Financing from national sources is very low and very limited.

At present, only Croatia has made a big step forward, through making the environmental fund operational. Main problems with financing environmental infrastructure are linked to user charges below cost-recovery levels, non-transparent and inefficient subsidy schemes, inadequate access to donors and IFIs loans, and no commercial financing. The result is that basic infrastructure maintenance work is not carried out, and assets deteriorate or cease to function. To comply with environmental infrastructure investments needs, expenditures from national budgets must be increased. It has been acknowledged that foreign sources of finance are available only for a tiny proportion of funds needed, and the majority of financial resources must come from national budgets.

EU assistance is mainly channeled through the CARDS programme, playing a role in creating an investment-friendly environment; other instruments for project preparation contribute to the development of projects to be financed by IFIs. At present Croatia is the only country eligible for the ISPA instrument dedicated to environmental infrastructure. It can be expected that together with the progress towards accession, EU financial assistance (e.g. IPA assistance) will increase and extend to other countries. Intensive efforts in planning and preparing projects for absorption of the funding before the instrument is operational are needed.

Assistance from bilateral sources focuses on capacity building for investment project preparation. Since 2002, there has been a decreasing trend in overall assistance to the region, which may be explained away by completion of post-war reconstruction programmes, prospects of increased EU assistance to the region, and a shift in donor assistance to other regions. Bilateral donor assistance should play a very important role in upcoming years in filling the gap of project preparation as a pre-condition to IFI financing bankable projects.

IFIs are major sources of funding for environmental infrastructure; however, there is a shortage of well-prepared, mature and bankable projects ready to be financed. IFI support is anticipated to increase in line with macroeconomic stability and economic growth in countries which enable development of bankable projects. The private funding of infrastructure projects is currently marginal, but is nevertheless expected to increase with macroeconomic stability. At present, commercial banks are involved in capital funding of environmental investment only in exceptional cases, though there is growing interest for private banks to become involved in this area.

Despite general recognition of the poor or non-existent state of environmental infrastructure, there are no available strategies or programmes which identify needs for environmental infrastructure with estimated investment costs in SEE. Environmental strategies are under development in many countries, but it is difficult to assess to what extent they will focus on identification of environmental infrastructure needs. The PEIP targeted this gap in environmental investment planning through supporting national authorities in developing lists of projects for compliance. The responsibility for developing environmental infrastructure projects is gradually shifted to local authorities through the decentralisation process. For local authorities, this task is typically still a novelty.

Strategic Approach

The key barriers to effective implementation of environmental infrastructure projects can be divided into those at the local level, the national level, and external barriers (outside the SEE region). Based on analyses of existing barriers, it

can be concluded that some should be addressed initially. The authors identified four groups of key barriers which, if addressed, would speed up the process of developing and implementing environmental infrastructure projects. These key barriers include:

- lack of domestic financing sources;
- inefficient project preparation;
- unfavourable conditions for borrowing; and
- low levels of private sector involvement.

In order to address these barriers, the strategic approach should include the following activities:

Securing domestic sources of finance

- National authorities should develop environmental financing support mechanisms on the national level (e.g. environmental funds, expenditure programmes) to support financing of infrastructure projects and to assist in overcoming affordability problems for those with low incomes.
- The financial gap between the new responsibilities of the local administration resulting from decentralisation process and extant financial allocation for fulfillment of these obligations must be assessed by national authorities. These processes would contribute to the identification of the financial gap and the scope of assistance needed to fulfill this gap.
- National authorities must see government spending in the medium-term macroeconomic framework, and realise that investing and assisting in financial investment brings economic and societal benefits through improving conditions of human life.
- Environmental authorities must enter into a dialogue with finance ministries to discuss upcoming investment challenges and the importance of environmental infrastructure and national support.
- The importance of environmental projects in the EU accession process should be highlighted in governmental agendas, e.g. via demonstrating benefits of compliance with EU legislation.
- Economic instruments should be introduced and/or revised to be efficiently collected as a source of revenue for domestic support to environmental projects.
- Enforcement of fees charged to state-owned polluters should be improved.
- Economic incentives must be developed to encourage investment in reducing pollution, e.g. implementation for penalties of overuse of resources such as water. National authorities must develop a system of collecting fees and must create a system to reduce penalties if environmental infrastructure improvements are ongoing or planned.

Improving efficiency of project preparation

Improving efficiency at the national level

- Bilateral donor assistance should be refocused to increase active involvement in technical assistance/project preparation in infrastructure projects. More project preparation facilities must be developed, e.g. in contribution of bilateral donors and EC funding, in order to increase the leverage of the provided assistance. Clear objectives should be set for larger projects suitable for IFI financing and smaller projects for grant financing.
- Intensive capacity-building training on the use of the IPA instrument for environmental infrastructure projects is needed. Development of financing strategies should be assisted by donor funding and IFI support.
- National authorities must develop a system which would allow achieving economy of scale through promoting regional solutions. When designing economy-of-scale solutions, the role of natural cultural regions should be taken into account to increase ownership of project; procedures for consolidation of utilities should be developed; and conditions for creating associations of municipalities should be stimulated.
- The role of environmental agencies in control and enforcement of environmental legislation should be strengthened.
- Regional cooperation should be strengthened to support exchange of best practices among nations.
- Responsibilities and roles of various ministries should be revised and inter-ministerial coordination introduced to stimulate and quicken the process of infrastructure project development.
- Comprehensive lists of projects should be developed and prioritised taking into account the top-down (ensuring economy of scale) and bottom-up (taking into consideration local needs) approaches. A system of effective project list management should be developed.

- The process of tariff increase should be put into procedures and unified for the sectors. Affordability analyses should stimulate national authorities in developing social impact mitigation programmes.
- National authorities should produce guidelines on calculating investment costs.
- National authorities should introduce obligation of implementing low-cost investments in order to reduce/minimise pollution before the high-investment project is introduced.
- National authorities should promote approaches to reduce the need for infrastructure though minimising the use of resources (e.g. water conservation).
- National authorities should introduce procedures for multi-year budgeting in municipalities.

Improving efficiency at the local (project) level

- Intensive capacity building on best practices and project preparation is needed. The gap exists particularly in relation to municipalities, for which development of investment infrastructure projects is a novelty.
- Constructive dialog between local project proponents and national authorities is needed to ensure that local projects be part of existing strategies and programmes.
- Project proponents should involve the public in infrastructure project development from the early stages of infrastructure design.
- Procedures for supporting the autonomy of utilities from municipalities should be introduced in order to increase efficient management of utilities.
- Efficiency of utilities should be a pre-condition for starting the process of tariff level increase in order to exclude costs of inefficient management from the costs of service, delivery and use.
- Holistic approaches to infrastructure development should be proposed at the project formulation phase, with all alternative solutions included in the project.
- Staff members should be appointed in the project's early stages in order to support project development from the very beginning.
- Ambitious plans to extend the coverage and level of infrastructure services must be replaced by more realistic, modest capital-improvement programmes tailored to provide essential repairs and rehabilitation of critical elements of infrastructure in order to maximise efficiency gains within the limits of affordability for households and municipal budgets.
- Elements of quality assurance, risk assessment, risk management, and time management should be introduced.
- Innovative solutions such as brownfield development should be promoted to support development of cost effective infrastructure solutions and private sector involvement.

Improving conditions for borrowing

- Projects large enough to be financed by IFIs should be identified. During the process of developing comprehensive lists of such projects financeable by IFI loan only, the list should be communicated to IFIs and further developed with their assistance and guidelines on procedures.
- Lessons learned from bankable infrastructure projects in SEE energy and transport sectors should be developed and assessed for applicability to the environmental sector. This can be especially relevant for legal and economic issues, procedures for permission, environmental impact assessments, taxation, and land ownership issues.
- IFIs should conduct intensive capacity building for municipalities in the region on the possibilities and requirements of receiving finance from these institutions in order to introduce the culture of working with IFIs.
- National authorities should revise and optimise procedures for obtaining guarantees so that municipalities may more easily borrow for capital investment.
- National authorities should provide procedures for all relations among lending institutions, the role of government, and obligations at local and national levels.
- Fiscal space should be assessed and possible borrowing identified.
- IFIs should intensify cooperation with commercial banks to launch credit lines for smaller investment projects.

- Creditworthiness of municipalities should be increased through better financial management to solve cash flow problems.
- IFIs should revise their threshold policies in order to accommodate small countries' infrastructure needs.

Enabling involvement of private sector

- Private sector involvement in capital financing is inevitable in order to target fiscal space problems. Commercial banks must launch special credit lines for private sector on capital investment borrowing to enable them to access the capital.
- National authorities must develop guidance and procedures on establishment of public-private partnerships and on ownership issues. Additionally, legal and institutional barriers to public-private partnerships should be removed.
- Procedures must be developed to determine liability issues as result of privatisation on the national level.
- Provisions of state aid should be analysed and/or developed in order to provide adequate support to private sector investors.

One pre-condition for achieving all the abovementioned goals is provision of comprehensive capacity building and institutional strengthening assistance to the countries. Special attention should be paid to clarifying roles and responsibilities in various institutions involved in the process, so that tasks may be taken up more efficiently.

Keeping in mind the objective of improving environmental standards in SEE through effective implementation of environmental infrastructure, what must be done to increase the number of infrastructure projects to be successfully developed and implemented in the SEE region must be determined.

It is proposed that the achievement of this goal be done in a three-phase approach beginning in 2006. These phases are defined as follows:

- Short term, or phase 1; one to two years (2006-2007). The key objective in the short term is to conduct preparatory work for effective development of environmental infrastructure projects, i.e. identification and prioritisation of projects for compliance with EU investment-heavy directives, mechanisms for inter-ministerial coordination, financial strategies.
- Medium term, or phase 2; up to five years (2006-2010). The key objective in the medium term is to begin implementation of infrastructure projects in all sectors for major polluting sites and to optimise financial sources.
- Long term, or phase 3; beyond five years (2006-onward). The key objectives in the long term are to make a wider range of financing projects available, and to develop and finance more local infrastructure projects.

The strategic approach developed and presented in this section provides general directions of work for different stakeholders in the region to facilitate development and implementation of infrastructure projects. The proposed approach has limitations due to many uncertainties in relation to future developments in the region, which should be taken into account. Key limitations include:

- Various stages of development in SEE countries; some countries are about to start EU accession negotiations while others are on the way to fulfilling SAP process obligations. The length of each phase identified in the strategic approach will vary by country.
- The EU accession date of any country covered in this report is unknown, and at accession EU funding resources are made available to the new member countries. As a working assumption, the opening of EU funds to SEE countries is included in the long-term phase.
- Complexity of investment project preparation and implementation prohibits direct comparison of the strategic approach with timescales of individual projects, as the latter can vary widely.
- National political changes and/or elections can influence the speed of reforms. Effectiveness in financial and economic reforms can reduce international debt and will increase the fiscal space for borrowing from IFIs.
- Effectiveness of social reforms, e.g. a lack of social protection reform as a result of increased charges, will result in affordability problems and lack of resources gathered through user charges.

Additionally, the approach has a linear form, meaning that the completion of each phase is linked to the achievement of the previous phase's objective, but the length of each phase may differ. Nevertheless, the strategic approach can be relevant for any country in the region, indicating a gen-

eral direction of work to increase the number of successfully implemented infrastructure projects.

The proposed strategic approach identifies key stakeholders in the process whose actions and directions of work should accelerate the process of developing and implementing environmental infrastructure projects in SEE.

For the strategic approach, the following stakeholders were taken into account:

- The public sector — In the short term, effective use of scarce public finance would depend on strategic prioritisation of projects. Additionally, national authorities managing public finance should design and launch a comprehensive environmental financing mechanism, which would support investment project implementation. In the medium term, operational domestic environmental financing mechanisms would gain importance, providing project preparation financing and project co-financing. The importance of public finance is particularly relevant in rehabilitation projects, closure and cleanup projects. In the long term, public finance would provide targeted assistance programmes on social protection.
- The European Union — In the short term, the greatest challenge is to get SEE countries prepared to receive assistance through the IPA instrument, with effective programming and building lists of projects for assistance playing the lead role. In the medium term, the IPA would provide assistance, and well-prepared projects would increase absorption capacities. In the long term, preparation for reception of post-accession EU funding such as Structural Funds must be done. As the accession date of any SEE country is unknown as of this writing, it must be assumed that preparing for Structural Funds funding would happen in the long term.
- Bilateral donors — In the short term, there will be an increased role for bilateral donors providing capacity building for project preparation, especially in cooperation with IFIs. Additionally, in the short- to medium term, the role of bilateral donors would increase in relation to providing finance for smaller infrastructure projects and innovative approaches, resulting from transfer of know how and technologies. In the long term, bilateral donors would change assistance arrangements as result of EU accession of the SEE countries, and more EU tools for international/bilateral cooperation would be accessible for the newly accessed EU member states.
- International financing institutions — In the short term, IFIs would finance pilot projects in the countries and identify lessons learnt. In the medium to long term, IFIs would have a significant role in providing financing for large infrastructure projects and in promoting management discipline.
- Service users — Service users are included in the strategic approach as providers of revenue from user charges. At present, there are serious deficiencies in financing operational and maintenance costs. Fully covered operational and maintenance costs of existing infrastructure are a pre-condition for successful development of new infrastructure. In the medium- to long term, the importance of user charges would increase as a result of implementing the polluter-pays principle and efforts to achieve cost recovery.
- The private sector — In the short term the role of the private sector would focus on providing know-how for consultancy services. In the medium term, if the conditions for providing finance from private sectors are established, the private sector would get involved in pilot cases in the public private partnerships. In the long term, it might be expected that the involvement of the private sector in capital investment in infrastructure projects would increase.

The short-term approach – one to two years (2006-2007)

In the short-term phase, the following tasks for the identified key stakeholders are required:

National government level

- Remaining EU legislation related to key investment-heavy directives must be transposed into national legislation and enforcement mechanisms must be designed.
- Clarifying roles and responsibilities of different ministries in relation to key investment-heavy directive implementation must be undertaken, followed by assessment of capacities needed (i.e. expertise and experience) within ministries to effectively assist in and to monitor implementation of legislation. Additionally, inter-ministerial cooperation with all relevant ministries (particularly the ministry of finance) should be established.

- Assessment of the gap between existing infrastructure and infrastructure needed to achieve standards set in legislation. Development of implementation plans and programmes should be followed by development and prioritisation of long lists of projects to comply with legislation. Designing a system for effective pipeline management and identification of capacities needed for its operation is necessary.
- Development of financial strategies with regional solutions for infrastructure to ensure that economy of scale is taken advantage of.
- Assessment of financial capacities of institutions which develop or upgrade the needed infrastructure must be done. Based on the results of assessment, design and adoption of environmental financing mechanisms on a national level are necessary to support financing of infrastructure projects.
- Assistance to potential project proponents in capacity building on infrastructure project preparation, taking different sources of finance (including IPA funding) into account should be provided.
- Assessment of fiscal space and opportunities for borrowing from IFIs should be made and followed by identification of larger projects suitable for IFI financing.
- Assessment of national, legal and institutional barriers to involving the private sector in infrastructure projects must be undertaken, as must designing a strategy for overcoming these barriers.
- Design of economic instruments which would encourage reduced use of natural resources and investment in pollution reduction technologies must be performed.
- Development of cooperation with the donor community to facilitate donor assistance programmes targeting real national needs must be done.

Donor community (EU, bilateral donors, IFIs)

- Assistance programmes must be revised by bilateral donors to include more active involvement in project preparation.
- Extension of regional cooperation for the leverage effect assistance garnered from different sources of finance must be given by the donor community.
- A strategy for cooperation between bilateral donors and IFIs so that prepared projects can receive financing from the latter in the most efficient way must be developed by the donor community. Project preparation facilities which provide assistance to potential project proponents to develop pilot environmental infrastructure projects must be launched.
- The national government must be cooperated with in identifying small-scale priority projects which can be co-financed by bilateral donors, larger-scale priority projects which can be financed by IFIs, and priority projects suitable for IPA financing.

Local (project proponent) level

- Collection of user fees to gather more resources to cover operation and maintenance cost of infrastructure by local authorities must be improved.
- Improving operation and maintenance of existing infrastructure and financial sustainability of utility companies must be improved.
- Schemes to reduce use of resources to optimise the needs for infrastructure must be introduced.
- Needs and concepts for upgrades and new infrastructure to comply with key EU investment-heavy directives must be identified.
- A multi-year budget to plan for implementation of long-term infrastructure projects and to secure resources from local budgets for project co-financing must be introduced.

The medium-term approach – up to five years (2006-1010)

National government level

- Inter-ministerial cooperation must be monitored and adjusted to governmental structures so that implementation plans and programmes are implemented efficiently.
- Identification of new projects and ensuring of financing for priority projects must be managed.
- Domestic sources for co-financing investment projects must be launched and affordability problems for low-income service users addressed.
- Project proponents must be assisted in preparing larger projects for IFIs and in preparing priority projects for IPA financing.

- A system of revenue collection through economic instruments and monitoring efforts to comply with legislation must be implemented.
- Economic and social benefits resulting from investment in environmental improvements must be identified.
- Commercial banks must be cooperated with in order to ensure private-sector access to capital.
- Cooperation with the donor community will enhance complementary financing of environmental investments from external sources and create enabling conditions for local authorities for borrowing.

Donor community (EU, bilateral donors, IFIs)

- Operational funding from the IPA for environmental infrastructure projects must be made and assistance in increasing absorption capacity to countries given.
- Assistance strategies must be revised so that IFIs focus more on financing environmental infrastructure projects.
- Assistance in infrastructure project preparation in cooperation with the entire donor community must be provided by bilateral donors.

Local (project proponent) level

- Tariff levels for service use must be increased to cover operation and maintenance costs of utilities and introduction of social support programmes to mitigate affordability problems. Such a rise should result in increased creditworthiness of municipalities.
- Prioritisation of identified needs and concepts for the infrastructure needed and further development of priority concepts must be done, identifying sources for financing project preparation and preparing projects for external funding.
- A holistic approach in proposed projects must be ensured so that all elements of proposed infrastructure will address the environmental problem according to EU legislation.
- Co-financing means from local budgets must be ensured for priority projects.
- The national government must be cooperated with in preparation of financing strategies for priority projects.
- Innovative solutions such as brownfield development must be implemented in infrastructure development schemes.

The long-term approach – more than five years

Specific long-term actions for stakeholders are more difficult to define, depending to a large extent on successful implementation of the activities identified in previous stages. The unknown date of EU accession of the SEE countries also hinders identification of specific actions for key stakeholders.

In general, national government actions would focus on improving efficiency of project-pipeline management and on monitoring enforcement of environmental legislation. By this time, favourable conditions for private sector involvement in infrastructure projects is assumed. National government would revise the assistance provided through domestic financing sources to comply with state aid regulations and would continue providing assistance in cases of affordability problems.

The role of external sources of finance, the EC, IFIs and bilateral donors, would be in providing a broad range of assistance programmes for infrastructure projects in order to comply with EU directives.

Project proponents on the local level would focus on increasing creditworthiness of municipalities, on designing financial strategies for projects, and on successfully accessing different sources of financing.

In the long-term approach, private financing would increase so that commercial banks would support capital finance and more public-private partnerships would be in place.

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Abbreviations

Countries and Government institutions/structures

ADA	Austrian Development Agency
BMU	Federal Ministry for the Environment, Nature Protection and Nuclear Safety, German
BMZ	Federal Ministry for the Economic Cooperation and Development, German
CEB	Council of Europe Development Bank
DEFRA	Department for Environment, Food and Rural Affairs, UK
DFID	Department for International Development
DG	Directorate-General
EAR	European Agency for Reconstruction
EBRD	European Bank for Reconstruction and Development
EC	European Commission
EEA	European Environment Agency
EEC	European Economic Community
EIB	European Investment Bank
EU	European Union
GDW&S	General Directorate of Water & Sewerage
GEF	Global Environment Facility
HBOR	Croatian Bank for Reconstruction and Development
IBRD	International Bank for Reconstruction and Development
ICPRD	International Commission for the Protection of the River Danube
ICSID	International Centre for Settlement of Investment Disputes
IMET	Italian Ministry of Environment and Territory
IMF	International Monetary Fund
MAFWM	Ministry of Agriculture, Forestry and Water Management
MTA&T	Ministry of Territory Adjustment and Tourism
MoD	Ministry of Defence
MEPP	Ministry of Environment and Physical Planning
MoAFWM	Ministry of Agriculture, Forestry, and Water Management
MoAWSF	Ministry of Agriculture, Water Supply and Forestry
MoE	Ministry of Environment
MoEPP	Ministry of Environment and Physical Planning
MoEPPPC	Ministry of Environment Protection, Physical Planning and Construction
MoF	Ministry of Finance
MoFA	Ministry of Foreign Affairs
MoH	Ministry of Health
MoHSW	Ministry of Health and Social Welfare
MoI	Ministry of Interior
MoPPCEE	Ministry of Physical Planning, Civil Engineering and Ecology
MTC	Ministry of Transport and Communication
NIB	Nordic Investment Bank
NMoFA	Norwegian Ministry of Foreign Affairs
OECD	Organisation for Economic Co-operation and Development
OECD/ DACOECD	Development Assistance Co-operation
REC	Regional Environmental Center for Central and Eastern Europe
SDC	Swiss Agency for Development and Cooperation
SECO	Swiss State Secretariat for Economic Affairs
SIDA	Swedish International Development Agency
SRSG	Special Representative of the Secretary General
UN	United Nations
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP FI	United Nations Environment Programme Finance Initiative
UNHCR	United Nations High Commissioner for Refugees
UNMIK	United Nations Mission in Kosovo

US	United States
USAID	United States Agency for International Development
USTDA	U.S. Trade and Development Agency
WB	World Bank
WMD	Water Management Directorate
WTO	World Trade Organization

Other abbreviations

BAT	Best Available Techniques
BOD	Biochemical Oxygen Demand
CAFE	Clean Air For Europe
CARDS	Community Assistance for Reconstruction, Development and Stabilisation
CAS	Country Assistance Strategy
CDM	Clean Development Mechanism
CF	Cohesion Fund
CFC	Chlorofluorocarbons
CIP	Capital Improvement Planning
COD	Chemical Oxygen Demand
CRS	Creditor Reporting System
DABLAS	Danube Black Sea Initiative
DAC	Development Assistance Committee
DD	Daughter Directive
DGF	Development Grant Facility
DISF	Danube Investment Support Facility
DSIP	Directive Specific Implementation and Financing Plan
DWD	Drinking Water Directive
EAP	Environmental Action Programme
ECENA	Environmental Compliance and Enforcement Network for Accession
EECCA	Eastern Europe, the Caucasus and Central Asia
EIA	Environmental Impact Assessment
ELV	Emission Limit Value
GAP	Governance Accountability Project
GDP	Gross Domestic Product
GIS	Generation Investment Study
GPERB	Greek Plan for the Economic Reconstruction of the Balkans
HiPERB	Hellenic Plan for the Economic Reconstruction of the Balkans
HMS	Hydro-Meteorological Service
HP	High Priority
IDA	International Development Association
IFC	International Finance Corporation
IFI	International Financial Institution
IPA	Instrument for Pre-Accession Assistance
IPH	Institution of Public Health
IPPC	Integrated Pollution Prevention and Control
ISG	Infrastructure Steering Group
ISPA	Instrument for Structural Policies for Pre-Accession
JMC	Joint Monitoring Committee
KEAP	Kosovo Environmental Action Plan
KESH	Albanian Power Corporation
KfW	Kreditanstalt fur Wiederaufbau
KfW DB	Kreditanstalt fur Wiederaufbau Development Bank
KTA	Kosovo Trust Agency
LCDP	Large Combustion Plants Directive
LCP	Large Combustion Plants
LEAPs	Local Environmental Action Plans
LGI/OSI	Local Government Initiative/ Open Society Institute
LIBOR	London Interbank Offered Rate
LIFE	Financial Instrument for the Environment
MEAP	Municipal and Environmental Action Programme
MIGA	Multilateral Investment Guarantee Agency
MoU	Memorandum of Understanding
MPs	Multi-project programmes
MS	Member State
NEAP	National Environmental Action Plan
NEFCO	Nordic Environmental Finance Corporation
NEHAP	National Environmental Health Action Plan
NES	National Environmental Strategy
NGO	Non-Governmental Organisation
NIMBY	Not-In-My-Back-Yard
NMS	New Member States
NWMP	National Waste Management Plan
NWS&SS	National Water Supply & Sewerage Strategy
O&M	Operation and Maintenance
OA	Official Aid
ODA	Official Development Assistance
OG	Official Gazette

PCB	Polychlorinated biphenyls
PCM	Project Cycle Management
PEIP	Priority Environmental Investment Programme
PEPA	Priority Environmental Projects for Accession
PHARE	Poland and Hungary: Action for the Restructuring of the Economy
PIF	Project Identification Form
POPs	Persistent Organic Pollutants
PPC	Project Preparation Committee
PPF	Project Preparation Facility
PPP	Public Private Partnership
PRSP	Poverty Reduction Strategy Paper
PVC	Polyvinyl Chloride
REBIS	Regional Balkans Infrastructure Study-Electricity
REReP	Regional Environmental Reconstruction Programme for South Eastern Europe
RTF CEE	Regional Task Force in Central and Eastern Europe
RWMC	Regional Waste Management Centre
RWS&SS	Rural Water Supply & Sewerage Strategy
SAA	Stabilisation and Association Agreements
SAP	Stabilisation and Association Process
SAPARD	Special Accession Programme for Agriculture and Rural Development
SEA	Strategic Environmental Assessment
SF	Structural Funds
SFF	Structured Finance Facility
SLGRP	Serbia Local Government Reform Programme
SME	Small and Medium-sized Enterprise
SMSC	Sectoral Monitoring Sub-Committees
SWOT	Strengths, Weaknesses, Opportunities, Threats
TPP	Thermal Power Plant
UWWTD	Urban Waste Water Treatment Directive
VAT	Value Added Tax
VOC	Volatile Organic Compounds
VROM	Dutch Ministry of Housing, Spatial Planning and the Environment
WS	Waste
WSS	Water Supply and Sewage
WT	Water
WTS	Water Technical Secretariat
WWTP	Wastewater Treatment Plant
ZGOS	Zagreb Solid Waste Disposal Company

Group of countries and country abbreviations:

SEE - South Eastern Europe: Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including Kosovo (territory under interim UN administration)

Abbreviations used for the SEE countries, entities and territories:
Al – Albania; **BiH** – Bosnia and Herzegovina; **RS** – Republic Srpska; **FBiH** – Federation of Bosnia and Herzegovina; **CR**- Croatia; **MC** – former Yugoslav Republic of Macedonia; **SCG** – State Union of Serbia and Montenegro; **SR** – Republic of Serbia; **MN** – Republic of Montenegro; **KO** – Kosovo territory under UN administration

CEE - Central Eastern Europe:
Countries included: Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia

Abbreviations used for the CEE countries:
BG – Bulgaria, **CY** – Cyprus, **CZ** – Czech Republic, **EE** – Estonia, **HU** – Hungary, **LV** – Latvia, **LT** – Lithuania, **MT** – Malta, **PO** – Poland, **RO** – Romania, **SK** – Slovakia and **SI** – Slovenia

Currencies:

ALL	Albanian Lek
BAM	Bosnian Marka
CHF	Swiss Franc
DKK	Danish Kroner
DM	Deutsche Mark
EUR	Euro
HRK	Croatian Kuna
NOK	Norwegian Kroner
PLN	Polish Zloty
SEK	Swedish Krona
USD	United States Dollar

Chapter 1
Introduction

Chapter 1: **Introduction**

Objectives of the book

This publication was prepared by the Regional Environmental Center for Central and Eastern Europe (REC) and funded by the European Commission Community Assistance for Reconstruction, Development and Stabilisation (CARDS) regional programme. It builds upon the REC's accumulated knowledge and experience in assisting the South Eastern European (SEE) ministries in the frame of the Priority Environmental Investment Programme for South Eastern Europe (PEIP).[1] The PEIP is a regional, institution-strengthening and capacity-building tool that supports national strategic environmental investment planning and provides background information to the donor community and international financial institutions (IFIs), outlining a regional perspective of investment planning. The PEIP is funded by the European Commission (CARDS regional programme) and was approved by the SEE ministries of environment in 2003.

Since the last publication, which was prepared in the frame of the PEIP in 2003,[2] there have been dynamic changes in the SEE related to reforms and in efforts geared towards joining the European Union. Through the Stabilisation and Association Process,[3] SEE countries are moving towards acceptance of and commitment to implementation of the EU environmental acquis.

Experience from the new EU members in Central and Eastern Europe has shown that compliance with EU environmental requirements and standards is a complex, time-consuming, and costly process. Countries must not only transpose the environmental acquis into national legislation, but must also implement it according to prescribed schedules. In the environment sector, this process requires serious capital investment into infrastructure. This is a particular challenge for SEE countries, as they lack readily available investment capital and market-based financing mechanisms.

Lack of investment capital and limited access to it are generally recognised as the major barriers to achieving compliance with new standards. The efficient identification and prioritisation of projects and the management of lists of projects must be also addressed as a priority need. Progress also depends on project formulation and preparation, for which resources in the countries are limited. Finally, institutional capacities have to be revised and strengthened until the institutions are able to fulfil their responsibilities efficiently.

The assistance provided since 2001 within the PEIP programme focused on the following aspects:

- identification and prioritisation of investment infrastructure projects, in line with EU requirements;
- developing environmental infrastructure project concepts;
- providing assistance for formulation of environmental problems into bankable investment project proposals;
- facilitating dialogue between project proponents and financing organisations; and
- facilitating exchanges of expertise between environmental financing experts from SEE and other European countries.

Details of the assistance provided in the frame of PEIP programme are presented in Annex 1.

This publication builds on lessons learned during the development and implementation of the PEIP, and best practices of the new EU member states and EU candidate counties during the implementation of the investment heavy EU directives.

The main purpose of this publication is to analyse the situation in relation to the development of infrastructure investment projects in SEE and to propose a strategic approach to what could be done to encourage the implementation of more infrastructure projects in the SEE region.

Thus, this book intends to:

- analyse major changes in national policies that might influence investment project preparation and implementation;

- present the investment challenge for the SEE countries resulting from implementing key EU investment heavy directives and overview the status of national legislation and organisational planning for supporting implementation of these directives;
- highlight challenges in relation to critical conditions for implementing investment projects;
- present the updated list of priority environmental infrastructure investment projects as a response by the SEE countries;
- analyse domestic and foreign sources of finance available for investment projects in SEE; and
- identify conclusions and set the way forward for the actions leading to more infrastructure projects being implemented in SEE.

This report is foreseen to be of primary interest to:

- decision makers responsible for strategic environmental investment planning in SEE as a supportive tool presenting the regional context of investment planning;
- donors and international financing institutions (IFIs), to whom it can serve as an important tool supporting the design of their assistance programmes for the SEE region; and
- all other stakeholders interested in developing infrastructure investment projects.

Scope of the publication

The publication covers the countries of Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, with specific references to Kosovo, which is under UN interim administration.[4] Within the text they are referred to as South Eastern European countries. Any abbreviations of the names of these countries in the text and tables were used only for presentational purposes and should be always understood as the full names of the countries.

The book presents the situation in the countries up to December 2005 unless stated otherwise. The data and text about the situation in the countries have been cross-checked and approved by the focal points from the ministries of environment of the SEE countries in order to provide the most up to date information.

The publication focuses on environmental infrastructure investment projects in the air, waste and water sectors. If there are references in the text to other sectors they are included to provide a broader picture, or when there might be influence to air, waste and water status.

For the purpose of this book, an environmental infrastructure investment project is understood as a project that requires significant financial resources and time to prepare and complete; results in the construction of infrastructure to provide systems and services such as drinking water supply, sewage treatment, or waste management; and leads to compliance with the key EU investment heavy directives. The analyses of environmental infrastructure investment projects focus on public infrastructure. It is understood that involvement of the private sector in infrastructure development and management is in the very early stages of development in SEE. Nevertheless, when appropriate, reference is made to opportunities and challenges for the private-sector involvement in infrastructure development and management.

Due to its regional (SEE) scope and character, this book gives priority to describing the infrastructure development of projects that have regional impact on the environment, as opposed to nationally focused publications. In many cases in the new EU member states, the challenge in relation to addressing rural infrastructure development proved significant. Wherever generic comments are made on analyses of infrastructure development, they are relevant for both urban and rural infrastructure development. Nevertheless, the focus of the analyses is placed on urban infrastructure development.

Targeting environmental investment challenge demands coverage of all stages of project cycle management. Taking into consideration the objective of the publication (i.e. to identify actions that will encourage more infrastructure investment projects to be successfully implemented in SEE), the book focuses on the early stages of project cycle management, such as programming and project preparation. The experience of the new EU member states shows that mistakes at the early stages of project cycle management can significantly reduce the chances of completing a project successfully. With this in mind, this publication puts special focus on actions of project cycle management up to the point that funds for the project's implementation are secured. Further elements of project cycle management are also mentioned in the text, but are not analysed in detail.

The publication often presents case studies and examples from Croatia, mainly due to the fact that among the SEE countries, there are generally more reports, successfully developed projects and information for Croatia than in other SEE countries.

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Methodological approach

General approach

Identifying actions leading to more infrastructure investment projects being implemented in SEE required the development of a specific methodology. As a first step, the investment challenge was determined. For that purpose the EU directives were analysed and as a result the key EU investment heavy directives were identified and their investment implications were described.

Secondly, the status of the legislative and organisational framework for implementation of the key EU investment heavy directives was analysed. This work resulted in the presentation in this book of the status of transposition of the key EU investment heavy directives into the national legislation, identification of responsible institutions and availability of implementation strategies, and other documents.

Thirdly, issues related to identifying and formulating investment projects in SEE were determined. It was achieved through a review of the existing infrastructure and lessons learned from investment project formulation already carried out in the region. Special focus was put on the preparation of bankable projects, as loans from international financing institutions are seen as a major opportunity for receiving finance.

Subsequently, the investment projects, which are to be proposed for receiving finance first, were identified and prioritised. It was done through updating the list of priority environmental infrastructure investment projects, which had been developed earlier within the PEIP.[5] Then, available sources of finance for the prioritised projects were identified. Analyses were made of the financing available from foreign sources.

Finally, taking into account findings from previous analyses, the conclusions and the ways forward for different stakeholders were drawn up.

Table 1 presents how the methodological approach is presented in the chapters of the publication.

TABLE 1

Presentation of methodological approach in the publication

ISSUE	APPROACH	CHAPTER
How to determine the investment challenge?	Analysis of the key EU investment heavy directives and their investment implications	3
Is there a legislative and organisational framework in place that can support implementation of projects targeting the investment challenge?	Analysis of national planning, transposition of key EU investment heavy directives, responsible institutions and existing strategies and programmes	4
What are the countries' experiences and what is the status of investment project identification?	Analysis of the status of project identification in line with the key EU investment heavy directives	4
What are the challenges related to project formulation?	Lessons learned from project formulation of pilot hot spots	4
What are the challenges in developing bankable environmental projects?	Analysis of critical conditions for implementing bankable projects	4
What are the priority projects which target the investment challenge?	Updating the list of priority projects	5
What are the available foreign sources of finance for the priority projects?	Analysis of foreign sources of finance for implementing priority investment infrastructure projects	6
What are the challenges for the future?	Drawing conclusions and suggesting ways forward	7

Tools for methodology implementation

The following tools were used for the methodology implementation:

- review and analyses of available reports and publications on the subject in relation to the situation in SEE and CEE;
- lessons learned from REC work on providing technical assistance to the SEE countries on strategic investment planning for implementation of key investment heavy directives and lessons learned from providing environmental financing assistance to the CEE countries;
- gathering of experiences of the new EU member states and EU candidate countries on preparing and implementing infrastructure investment projects; and
- gathering information about the SEE countries and cross-checking with the relevant ministries. In the cases where there were no publications available, collecting and approving information for the publication was a crucial element of the methodology.

Main limitations

While developing the publication, the main limitation was availability of reliable official data and reports. Therefore information gathered from the countries was cross-checked and approved by the ministries of environment.

At the same time it should be noted that in the SEE countries the situation is rapidly changing and it may influence the findings of this publication, and therefore the findings should be treated as a snapshot of the situation as of December 2005. Updating the list of priority projects was affected in many cases by the lack of information about proposed investments on a national level. Information had to be gathered directly from project proponents.

Throughout this publication, special care has been taken with the use of the term "municipality." The collective term "municipality" is used to describe the lowest level of local self-government where elected councils and executives exist, along with administrative and functional apparatus. The term "municipality" in many South Eastern European countries expresses a rank or applies only to settlements of a certain size or function, with other expressions such as village, commune, town, city, and settlement, etc. In the former Yugoslavia, the expression "opstina" or "opcina" refers to units containing many settlements of varying sizes that are organised into one self-government unit. For the purposes of this publication, the term "municipality" reflects the NUTS V level[6] in EU nomenclature, the lowest level of elected local self-government that has legal status, and the potential ability to perform environmental functions with borrowed funds. In some entities, each settlement is a municipality, while in others, clusters of settlements form legally-constituted local self-governments, which, in the context of this chapter, we shall call municipalities. The next level in the NUTS system is NUTS IV: the territorial self-governing unit that is one step above the municipality. These are called micro-regions, districts, etc. in common parlance, and seem to be more active in the solid waste area where the scale economies needed for a modern, EU-standard facility assume a population base of at least 100,000 residents. In

TABLE 2

Key Investment Heavy Directives as of 2001

Water Supply/Wastewater Treatment	**Waste Management**
Urban Wastewater Treatment Directive	Landfill Directive
Drinking Water Directive	Municipal Waste Incineration Directives
Dangerous Substances into Water Directives	Hazardous Waste Incineration Directive
Nitrates Directive	Packaging Waste Directive
Air Pollution Control	**Industrial Pollution Control**
Large Combustion Plants Directive	IPPC Directive
Fuel Quality Directives	VOC Solvents Directive
Air Quality Directives	VOC Solvents Directive

Source: COM(2001) 304 final, Communication from the Commission, *The Challenge of Environmental Financing in the Candidate Countries.*

countries with much smaller local self-governments, associations of municipalities, or the involvement of the next political unit that represent a population of 100,000 are needed.

Methodological issues in the chapters of the publication

Chapter 2

This chapter presents the overview of changes in the economic and environmental situation of the SEE countries. Information from the countries is based on the SAP reports from the last three years (2002-2004). Information presented in this chapter only represents a selection of reforms that may influence the development of environmental investment projects, not a comprehensive analyses of the progress achieved in the countries.

Chapter 3

Implementation of the EU environmental acquis has major financial implications for the countries. Based on the experience of the new EU member states, some of the directives pose a greater challenge for implementation from the financial point of view. These directives were identified as key EU investment heavy directives.

A set of these directives – presented in Table 2 – was identified for the candidate countries in 2001.

The directives identified were screened for the purposes of this publication to analyse their relevance and reflect update changes in the environmental acquis since 2001. Box 1 contains a list of directives analysed for this publication.

When analysing the investment challenge in relation to public sector infrastructure development, the text in the publication often refers to key directives for waste and water sector such as the Landfill Directive, Drinking Water Directive and Urban Waste Water Directive, as it is assumed that these directives will have major investment implications for municipalities. The number of directives that have investment implications is much greater; when necessary these directives are also mentioned in the text.

Although it is one of the key investment heavy directives, the Industrial Pollution Prevention and Control (IPPC) Directive is not covered in detail in the publication for two reasons. Firstly, focus is put on public investments. Secondly, the directive is the subject of many technical assistance projects in SEE.

Chapter 4

Information presented in the subsection **"Government planning for legislative and institutional frameworks"** presents a snapshot of the situation as of December 2005. Information was gathered from all countries covered by this book. The data collection was executed via questionnaires

BOX 1

Investment heavy directives

Air sector

- Air Quality Directive (96/62/EC)
- Large Combustion Plants Directive (2001/80/EC)

Waste sector

- Landfill Directive (1999/31/EC)
- Incineration Directive (2000/76/EC)
- Hazardous Waste Directive (91/689/EEC)
- Sewage Sludge Directive (86/278/EEC)

Water sector

- Drinking Water Directive (98/83/EC)
- Urban Waste Water Treatment Directive (91/271/EEC)
- Dangerous Substances in Water Directive (76/464/EEC)
- Nitrates Directive (91/676/EEC)
- Bathing Water Directive (76/160/EEC)

developed and distributed to the countries. Based on the information provided on the questionnaire, the draft study was compiled. The draft version was revised and verified by the ministries of environment and/or other relevant ministries. The revised version was presented to the PEIP focal points from the relevant ministries, to PEIP coordinators at REC country offices, and to pilot hot spot representatives for secondary feedback. Having included the received comments, the final draft was presented at the PEIP Regional Meeting for senior officials from SEE and the donor community held on September 22, 2005 in Brussels, Belgium. The final information was cross-checked by the ministries of environment to reflect changes in the situation up to December 2005.

The chapter presents an overview of key institutions responsible for implementing the directives. There may be other institutions involved in the implementation, but either their roles have not been assigned or are limited in scope.

The process of identifying investment projects for compliance with the EU directives is a new concept for many SEE countries. There is a limited number of plans or reports to identify the needed infrastructure. Therefore, while gathering data for the subsection **"Project identification,"** special focus was put on cooperation with the ministries of environment. All data presented was cross-checked by the ministries and approved by them to be included in this publication.

The overview of selected environmental infrastructure in SEE should be taken with caution, as it does not present the total amount of infrastructure in the countries (a task to be conducted in the future but beyond the scope of this publication), but rather what is known by the ministries of environment.

Lessons learned from investment project formulation in SEE are based on the authors' assistance provided to the selected 33 pilot locations in SEE in the frame of the PEIP project and assistance provided to the new EU member states. The subsection **"Project formulation"** focuses on obstacles to the municipal financing of investment projects, as the assistance to the public sector is recognised as a major need by SEE ministries of environment.

In the subsection **"Developing bankable projects,"** focus shifts to the development of investment projects in the municipalities based on the following assumptions:

- Municipalities are responsible for developing public sector projects for environmental infrastructure. Thus they face the biggest challenge in developing bankable projects.
- The greatest investment challenge in relation to implementing the requirements of key EU investment heavy directives lies in the future with municipalities, not only in respect to the value of investments needed but also in respect to the number of municipalities affected.

Information shown in the chapter is based on a detailed survey conducted for all the countries. Summaries of the country reports in a tabular form are presented in Annex 2. Additionally, a desk study was conducted to analyse information and gather relevant reports from Central Eastern European countries to be used for their lessons learned.

Finally, information and data presented were cross-checked with the SEE ministries of environment and/or other relevant ministries.

Chapter 5

The methodology for the PEIP's list of projects was developed from 2001-2003. For the update of the list, the following methodological steps were taken:

- revising the project identification form;
- revising the criteria for prioritisation;
- revising the format of the list of priority projects;
- collecting new investment projects for the list; and
- developing updated lists of priority projects.

The Project Identification Form (PIF) is a tool for collecting the necessary basic information about proposed investment projects. It is assumed that all information about projects requested in the PIF form is the minimum information needed for IFIs and donors to get acquainted with the project idea.

Separate PIFs were developed for air, waste and water sectors. Each PIF is divided into three parts:

- Part A requested information about the implementing agency and the strategic relation of the project to national policy. Additionally, information about the project was requested in relation to objectives, project components, impacts of the project and status of the project.
- Part B focused on technical and environmental impacts of the project in relation to project location, status of the ownership of the land and buildings, the technological solution proposed, pressures on the environment and the stakeholders' opinions on the project idea.
- Part C requested financial information about the project in relation to the total investment costs, cost categories, foreseen financial sources, financial needs, and financial data of the borrower (when a loan is foreseen).

An example of the blank PIF for the waste sector can be found in Annex 5. The information collected via the PIFs was analysed and used as basic input data for prioritising projects. A set of criteria was revised and used for the prioritisation of projects. Table 20 in Chapter 5 presents the system of criteria, weights and scores given.

Each criteria group (e.g. strategic, geographical) had an assigned value of importance or "weight." The weights were used to prioritise between different sets of criteria. The weights add up to 1. For all indicators of a particular criteria set, a respective value was assigned. The values indicate the fulfilment of a particular criterion in a particular group. If a criterion was not fulfilled, it was given a score of zero. If the criterion was fulfilled, the score equals the indicated value. After screening the project against each criteria group, the scores were totalled. The process of project scoring was based on the concept of weighted average. Weighted scores were then aggregated to determine a single value. Weights and scores were determined in the process of negotiations with the officials from the ministries of environment and the approach chosen was approved by them.

This method of prioritisation was used to make a strategic identification of high priority projects. After all of the projects were screened they were divided into two categories: high priority projects (score of more than 60 percent) and other projects. The results of the prioritisation exercise are presented separately for each of the countries in Annex 3.

The prioritised projects are presented in the list of projects in Chapter 5. The format of the list of projects was developed in cooperation with the Infrastructure Steering Group.[7] The list presents the most important information about a project highlighting a regional (SEE) aspect of the priority project and the most important financial issues.

Focal points from the ministries of environment were approached in relation to the update of the list of priority projects. They had three possibilities for updating the list:

- to remove projects from the list (if the project had already received financing or was no longer relevant);
- to update information about projects on the list; or
- to propose new projects to the list.

After collecting information about projects from the countries and their prioritisation, the updated draft list of projects was presented to the focal points from the ministries. The final updated lists of projects analysed in this book was presented and approved at the PEIP regional meeting in Brussels on September 22, 2005.

It must be noted that the list should not be treated as a complete list of projects from the SEE region, but as the list of priority projects promoted by the countries in December 2005.

Chapter 6

Information was gathered by studying documents available on websites of major financial contributors to the SEE region and cooperation initiatives such as the Danube Investment Support Facility (DISF), the Danube Black Sea Task Force (DABLAS), the Project Preparation Committee (PPC) and the Infrastructure Steering Group (ISG). In addition, documents on project financing received from the Organisation for Economic Co-operation and Development (OECD), the European Commission (EC) and donor associations such as ISG and PPC were reviewed.

For the analysis of environmental projects under CARDS support, the authors reviewed the CARDS annual programmes for 2002, 2003 and 2004 for each country concerned, as well as the Regional Multi-annual Indicative Programme between 2002 and 2004. Environmental projects in water, waste and air sectors were taken into account without transport or agriculture components. These include:

- investment projects in environmental infrastructure such as water, waste related infrastructure, and pollution abatement in the energy sector;
- institution-strengthening and capacity-building projects in the environment sector such as policy development, and support to environmental management; and
- technical assistance for the preparation of environmental investment projects in the water, waste and energy sectors, such as feasibility studies.

Environmental components of projects reported under other sectors, such as health, agriculture, transport, and refugee return, were excluded from the analysis.

Under environmental investments, the authors considered direct allocations for water, waste infrastructure and pollution abatement in the energy sector.

In the waste sector, these included rehabilitation and construction of landfills and establish-

ment of waste recycling facilities. In the water sector, they included construction of sewerage and wastewater treatment facilities and provision and treatment of drinking water. Air sector investments included:

- overhaul of thermal power plants;
- pollution reduction of coal fired power plants;
- rehabilitation of ash dumps at power stations;
- rehabilitation of tailings disposal areas of the metallurgical industry; and
- air pollution reduction measures in coal mines.

Table 37 in Annex 8 presents figures based on the CARDS annual programmes.

Data on bilateral assistance to South Eastern Europe was taken from the International Development Statistics Online databases, the Development Assistance Committee (DAC) online database on annual aggregates and the Creditor Reporting System (CRS) Aid Activity Database maintained by OECD/Development Assistance Committee <www.oecd.org/dac/stats/idsonline>.

The CRS Aid dataset excludes private grants from DAC member countries and aid from non-DAC bilateral donors. Bilateral aid administered by non-governmental organisations on behalf of the official sector is included.

DAC members are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States and the Commission of the European Communities.

For the analysis in the publication only bilateral official development assistance (ODA) and official aid (OA) grants were taken into account that were channelled to the following recipients:

- Albania;
- Bosnia and Herzegovina;
- Croatia;
- the former Yugoslav Republic of Macedonia; and
- Serbia and Montenegro, including Kosovo.

Unallocated grant commitments were not covered by the analysis. Bilateral ODA grants provided by the European Commission, UN organisations and the World Bank (IDA) were not covered by the analysis. Grants channelled to the states of ex-Yugoslavia that were unspecified were included in the analysis on grant assistance.

Grants committed to environment were selected based upon purpose codes used by the Development Assistance Committee. Table 38 in Annex 8 presents the codes used by the Development Assistance Committee.

Following the desk research, broad consultations were made with all major donors to the SEE region in order to present their ongoing and future assistance to the SEE countries. Results are presented in Chapter 6 and Annex 6 on donors fiches. Information in the annex about donor assistance was cross-checked with the bilateral donors and international financing institutions (except where another source is stated in the text).

Structure of the publication

The structure of the publication is as follows:

- Chapter 1 introduces the objectives of the publication and its rationale.
- Chapter 2 presents the major trends in the economic and environmental situation in the SEE region.
- Chapter 3 outlines the investment implications of key EU investment heavy directives.
- Chapter 4 presents analyses of the situation in the SEE countries in relation to investment projects identification, formulation, developing legislative and organisational structures and analyses critical factors for developing bankable projects.
- Chapter 5 presents the updated lists of priority environmental investment projects from the SEE region.
- Chapter 6 outlines the key sources of finance of infrastructure projects available for SEE countries.
- Chapter 7 summarises conclusions on targeting the investment challenge and proposes the way forward to implementing priority projects from the list.

Annex 1 presents the assistance provided in the frame of PEIP project.

Annex 2 presents the country comparisons on municipalities financing investment projects and bankability issues.

Annex 3 presents the results of the prioritisation exercise.

Annex 4 presents an overview of pilot site strategies.

Annex 5 presents the example of project identification form for waste sector.

Annex 6 presents the overview of assistance from foreign sources of finance.

Annex 7 presents the list of donor contact information.

Annex 8 presents background data used.

Endnotes

1 The PEIP has been developed and implemented within the framework of the Regional Environmental Reconstruction Programme for South Eastern Europe (REReP). More information about REReP can be found on <www.rec.org/REC/Programs/REREP/default.html>.

2 Fiedler J, Moorthi G, and Paroha L., *Developing a Priority Environmental Investment Programme for SEE,* REC, August 2003 (164 pages), ISBN: 963 9424 382.

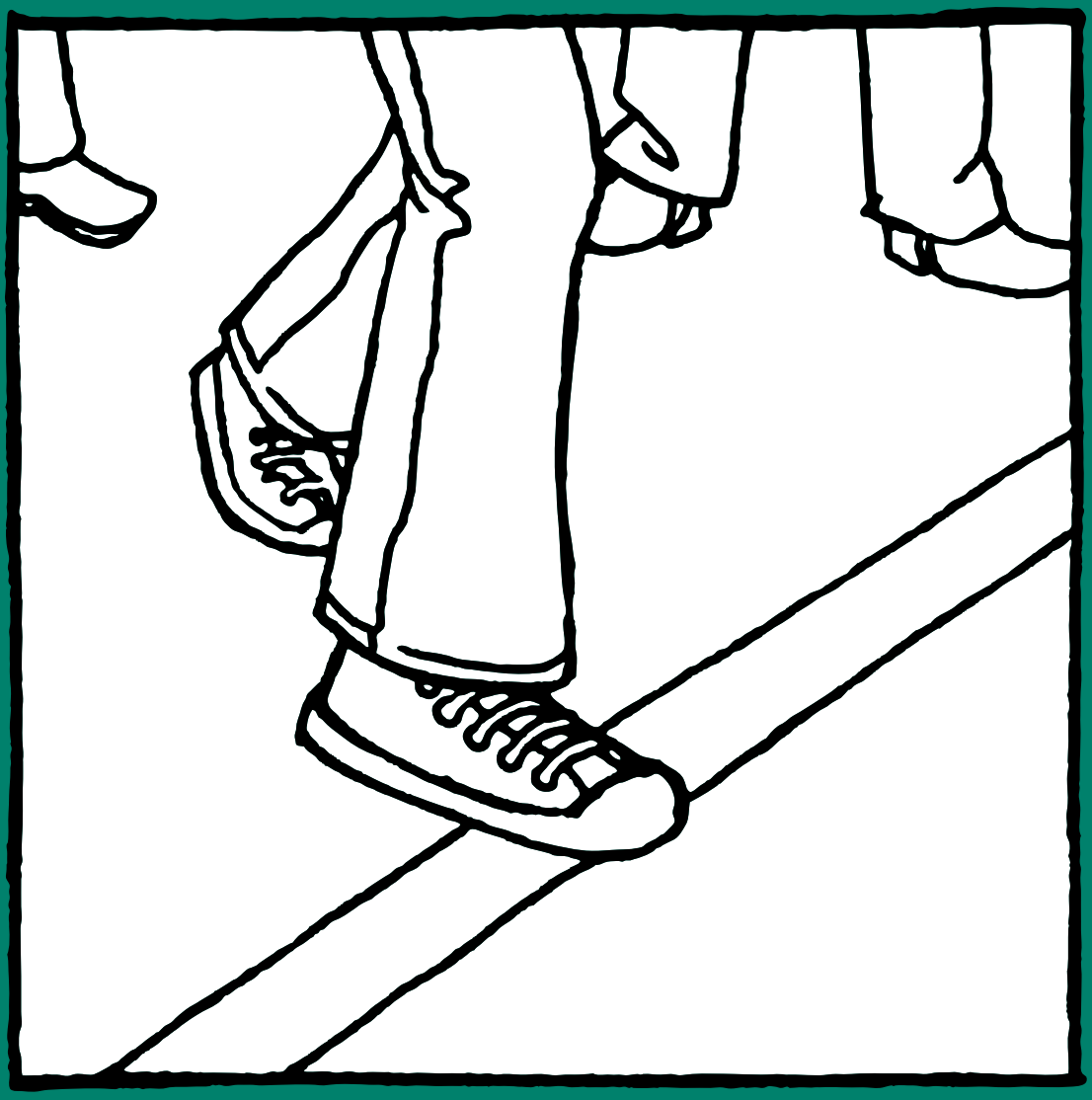
3 The Stabilisation and Association process is a long-term commitment of the EU to the region both in terms of political effort and financial and human resources. The Stabilisation and Association Agreements represent both the cornerstone of the Stabilisation and Association process and a key step to its completion. The conclusion of Stabilisation and Association Agreements represents the signatories' commitment to complete over a transition period a formal association with the EU. Such an association has high political value. It is based on the gradual implementation of a free trade area and reforms designed to achieve the adoption of EU standards with the aim of moving closer to the EU.

4 All references to Kosovo in the text are understood to refer to the territory under UN interim administration.

5 See <www.rec.org/REC/Programs/REREP/Documents/update/EnvInvestmentPr.pdf>.

6 NUTS is a standard nomenclature for levels of government used by the EU. NUTS I is an entire country, NUTS II a region, NUTS III a county or province, NUTS IV a district, micro-region, kraj, Kreis etc, NUTS V, the lowest level of local self-government, including settlements, villages, cities, municipalities, towns, etc. In the publication NUTS 4 and NUTS 5 corresponds to LAU (local administrative unit) 1 and LAU 2. LAU is the new nomenclature introduced by the EU.

7 See Chapter 6 for a description of the Infrastructure Steering Group.



Chapter 2
Setting the Scene

Chapter 2: **Setting the Scene**

This chapter presents the major trends in the economic and environmental situation as a result of recently implemented reforms in the SEE countries. These reforms may exert considerable influence over the development of environmental infrastructure projects. The overview of instruments which support implementation of these reforms is presented. An overview of the availability of financial resources for implementing investment projects in the SEE countries follows.

Reforming the countries[1]

The SEE countries are under an ongoing process of reforms to fulfil the objectives set by the Stabilisation and Association Process. Many of the reforms might stimulate the development of environmental investment projects in the region, and the lack of reforms might consequently hamper this process.

There are several key challenges facing the SEE countries[2] in making reforms that would increase the number of environmental investment projects, including: strengthening administration capacities and clarifying responsibilities; implementing and enforcing the environmental acquis; determining investment needs; developing financing strategies and implementation plans; allocating adequate resources as a result of the decentralisation process; improving capacities for water, sewage and waste management; integrating environment into other policies and applying the polluter-pays principle; tackling cases of corruption; reforming public administration and strengthening institutions; improving the business environment, encouraging investment and increasing the competitiveness of the market. Economic, legislative and institutional reforms should play a major role in this process.

BOX 2

Role of economic reforms in relation to the environment in the new EU member states

The process of EU accession stimulated substantial economic reforms in the new EU member states. These reforms facilitated the process of environmental compliance. The experiences of the new EU member states show[4] that the economic reforms contributed to the environmental compliance in the following ways:

- helped to generate resources for investment in cleaner, more efficient technologies;
- restructured the industry to reduce the share of pollution-intensive heavy industries; and
- helped to curb pollution and waste generation as part of the shift towards more efficient production methods.

Democratic reforms have unlocked demand for environmental improvements that resulted in more effective environmental policies. In the countries where reforms were more advanced, these factors led to a "decoupling" of pollution levels from economic output (in particular, reductions in emissions of key air pollutants have been greater than decreases in output) and these countries have returned to economic growth. Consequently, serious pollution threats to human health have diminished.

In the countries where the reforms were slower, the opposite was the case. Economic crises and the slow pace of economic reforms impended environmental improvement, and pollution levels and resource consumption declined less than output.

The lack of economic incentives for efficient operations, coupled with the lack of opportunities to profit from distortive fiscal and monetary policies, has hindered improvements in energy efficiency and cleaner production.

Economic reforms

Economic reforms stimulate and support changes in the environmental situation and might have a very positive effect on targeting the pollution, if implemented properly. (See Box 2)

The process of economic reform and restructuring[3] would eliminate the disincentives that underpin many of the environmental problems of centrally planned economies. It was recognised that economic reform alone is not a solution. In order to ensure that enterprises and other economic actors improve their environmental performance, effective environmental policies, institutions and investments are required to harness the positive forces of market reform. In turn, economic stability and the prospects of sustained economic growth to encourage governments and industrial enterprises to take steps needed to make more efficient use of energy and natural resources, mitigate pollution, and enhance the positive environmental effects generated by economic reforms are required.

Although progress in the different countries of the SEE region varies, all have moved towards building stable democratic institutions. This progress was particularly visible in Croatia, which was designated by the EU as a candidate country and entered accession negotiations in October 2005. The former Yugoslav Republic of Macedonia also became a candidate country recently.

There is visible economic growth in all of the SEE countries, as GDP levels per capita have increased in all of them (See Box 3). The most vigorous increase was noted in Croatia.

Macroeconomic stability is key to economic growth. Without it, there are no incentives for enterprises and other organisations to invest time, labour, and money in anything that will not produce an almost immediate return. The situation in South Eastern Europe varies from country to country.

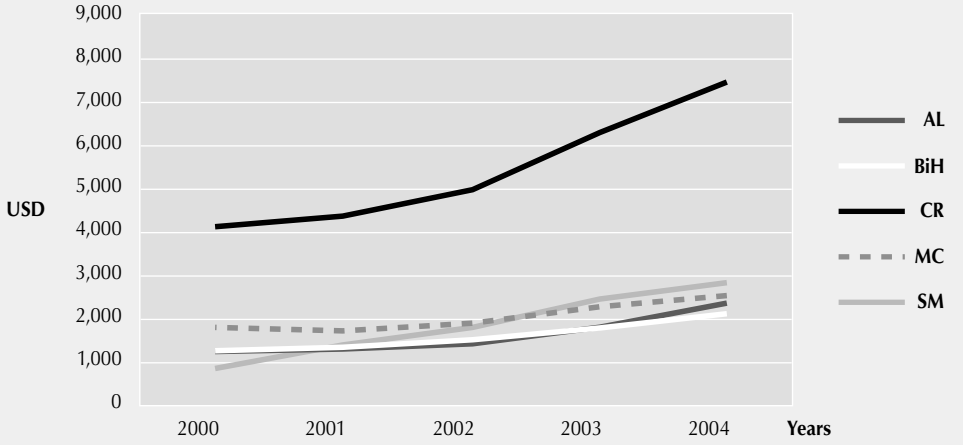
Albania has been successful in maintaining a stable macro-economic framework since 2003, generally achieving standards set by the International Monetary Fund (IMF). Albania also regularised its position towards its World Trade Organization (WTO) obligations in relation to certain commodity tariffs.

Bosnia and Herzegovina's economy has only operated within the framework of functioning market principles to a limited degree. Industrial production and economic growth increased in 2004, while inflation remained low.

Croatia is regarded as a functioning market

BOX 3

GDP per capita in the SEE countries



Source: EBRD Transition Report 2005
Note: Figures for 2004 are estimates.

economy. Croatia should be able to cope with competitive pressure and market forces within the European Union in the coming years if it continues to implement its reform programmes.

The former Yugoslav Republic of Macedonia has been successful at maintaining a stable macroeconomic framework and joined the World Trade Organization. The SAP report states that the country has achieved a high degree of macroeconomic stability, with low inflation, balanced public finances and low public debt. The liberalisation of prices and trade, together with privatisation reforms, have been largely completed.

In Serbia and Montenegro, both republics operate to some degree within the framework of functioning market principles. In the Republic of Serbia, progress has been achieved in relation to fiscal tightening, improving tax enforcement, narrowing the trade deficit, improving international reserves and decreasing the external debt. As for the Republic of Montenegro, the economy is growing, and progress has been made in reducing inflation, liberalising prices, advancing the privatisation process, reducing unemployment and narrowing the budget deficit.

In Kosovo (territory under UN interim administration) economic development depends on mid- and long-term stability. Although progress has been achieved, Kosovo remains the poorest region in the Western Balkans where the framework for functioning market principles is emerging. There is a need for further efforts to address the serious shortcomings in competitiveness of the economy.

Legislative reforms

One of the pre-conditions for having efficient environmental policy is getting appropriate legislation in place and then developing strategies and plans. Over the past two years, the SEE countries have progressed in relation to drafting and adopting new laws which follow the EU directives' requirements.

In Albania, work focused on tacking air pollution. Important steps were taken to improve environmental quality by deciding on the allowable levels of air pollutants from emissions, noise from mobile road sources, and the approach to their control.Reforms continued on decentralisation and privatisation in the water sectors. These reforms resulted in the introduction of bulk water metering, the setting up of a computerised billing and collection system, the transfer of responsibility for tariff-setting to local government authorities, and the establishment of a separate department within the General Directorate of Water and Sewerage to deal with drinking water and sanitation in rural areas. A new law was passed on norms relating to effluent discharges, according to which no business which discharges wastewater effluents will be issued with an operating permit unless it installs water purification equipment.

In Bosnia and Herzegovina, work on environmental issues in 2004 focused on the drafting of about 50 pieces of secondary legislation on environment in both entities. There were some developments in the waste management field, where, for example, current legislation is being implemented according to the Waste Management Strategy. A register of polluters is also being developed.

Croatia made significant efforts to harmonise national legislation with the EU environmental acquis. Several acts were passed in the air, water and waste sectors as well as the National Waste Management Strategy. Several plans and strategies are under preparation in waste and water management and air quality protection.[5]

In the former Yugoslav Republic of Macedonia, the basic elements of a legislative framework are in place following the legislation passed in 2004 on ambient air quality, waste management, nature protection and physical and urban planning, while the Law on Water is under preparation. Some regulations were developed, for example, to control ambient air and the use of phosphate detergents. Methyl-bromide has been phased out, and a plan was approved to phase out certain ozone-depleting substances.

Legal progress was achieved in the constituent republics of Serbia and Montenegro. Serbia is pressing ahead with a legal reform programme on waste management and packaging waste. The republic continues to implement the waste management strategy adopted in 2003.

The Republic of Montenegro has adopted a National Policy on Waste Management and a Strategy on Waste Management in 2005. Four laws that are harmonised with EU standards were prepared:

- Law on Environmental Impact Assessment,
- Law on Strategic Environmental Impact Assessment; and
- Law on Integrate Prevention Pollution Control; and
- Law on Waste Management.

Revisions of the Law on Environment were made and several drafts laws were prepared, such as the Law on Air Quality, the Law on Protection of Ionising Radiation and Nuclear Safety, and the Law on Chemicals. In the framework of the CARDS programme for 2005-2006 and in cooperation with the European Agency for Reconstruction, the republic is working on the establishment of an agency for environmental protection in Montenegro.

In Kosovo, which is under UN interim administration, the Environmental Protection Strategy was approved in 2004 by the government. An environmental action plan for Kosovo is being drafted for the next five years. An environmental legislative framework is also under development by the provisional institutions of self-government. The government is planning to establish an environmental protection agency and an environmental inspectorate. In the air sector, the adoption of the Law on Air Protection in November 2004 brought air quality legislation up to European standards. The first step of Kosovo to approximate EU legislation on water quality was the promulgation of the Kosovo Water Law in October 2004. Secondary legislation was also passed in 2005 following the adoption of the Law on the Activities of Water, Waste Water and Waste Services Providers. Additionally a Waste Water Treatment Strategy was adopted in 2004.

A detailed analysis of the legislative reforms in relation to the selected EU directives is presented in Chapter 4.

Institutional reforms

Reforming public institutions and governments can help to build effective environmental institutions that will be able to support implementation of environmental infrastructure investment projects. Institutional reform has proved to be a slow and difficult process, requiring not only restructuring but also changing "the culture" of public institutions.[6] The progress in institutional reforms in the SEE countries varies significantly among the countries.

In Albania the legislative reforms of the judicial system conducted in 2004 and 2005 brought the country closer to the EU standards. Important progress has been made in relation to removing administrative barriers to investment. The Small and Medium Size Enterprises agency became operational. A new EU-compatible strategy on public internal financial control was introduced that resulted in improved public finance management, including better revenue estimation and budget planning.

Bosnia and Herzegovina has made progress in further consolidating the stability of its institutions guaranteeing democracy, the rule of law, human rights, and respect for and protection of minorities. It is still a concern in Bosnia and Herzegovina that progress has only been achieved thanks to international pressure, and therefore efforts are still needed to ensure a non-reversible, self-sustaining state able to assume full responsibility for government. Positive steps have been taken in the field of public administration, but additional efforts are needed to continue to increase the effectiveness of the executive and legislative bodies to develop efficient state- and entity-level institutions.

Croatia is considered to have stable democratic institutions, respecting their limits of competences and cooperation with each other.

The former Yugoslav Republic of Macedonia has made progress in building democratic institutions. The country has stable democratic institutions which function properly, cooperating with each other and respecting the limits of their competences.

Weaker cooperation of joint institutions and implementation of policies by joint state institutions in Serbia and Montenegro comes from the overall lack of consensus on the future of the state union. There was varied progress in relation to political reforms. There was progress in both republics concerning the legal framework of public administration reform, but the administrative capacity remains very low. Tackling corruption still remains a challenge for the future. The structural reforms and reforms of the banking system progressed.

In Kosovo (territory under UN interim administration), authorities have prepared an Action Plan that is seen as the key instrument guiding the government's work plan. Work is needed on strengthening the rule of law, tackling corruption, strengthening the administrative capacities and improving transparency and accountability. At the same time, structural reforms have progressed, especially the privatisation of socially owned enterprises.

Supporting reforms implementation[7]

Implementing reforms with regards to environment is one of the most challenging tasks for the SEE countries. There are many different ways and instruments which can be used for their implementation. Selected instruments which can be used to implement and stimulate implementation of the reforms are presented in Table 3.

Financing sources

Changes in the economic, political and environmental situation move the SEE countries towards focusing on implementation and enforcement of adopted environmental legislation. Strengthening environmental institutions and policies, developing public support for environmental protection, and having effective, well-enforced pollution control instruments provide strong incentives for economic actors to undertake environmental protection initiatives, including investments for pollution reduction. This section looks at the developments in environmental financing in the SEE countries. It is followed by an overview of the foreign sources of finance available for the SEE countries.

Domestic financing sources

Implementation and enforcement of adopted environmental legislation creates a demand for mobilising financial resources. This demand reflects the willingness of polluters and users of the environmental resources to pay for investments needed to reduce the pollution. Usually, the demand is created in two sectors, enterprises and municipalities. State- or private-owned enterprises invest in pollution prevention, treatment and control of their companies. Municipalities primarily invest in infrastructure for municipal services such as water supply, wastewater treatment, solid waste management and district heating.

TABLE 3

Selected instruments to implement policy reforms

INSTRUMENT	ROLE	COMMENT	EXAMPLE FROM SEE
Economic instruments	Economic instruments are crucial to reducing pollution in a cost-effective way.	In many SEE countries, there are legal provisions for economic instruments to be used. In practice, in many countries the collection rates are negligible or non-existent.	In Croatia some of the collected charges are earmarked as revenue of the Environmental Protection and Energy Efficiency Fund.[8]
Environmental Impact Assessment (EIA)	EIA reviews the ecosystem and human effects of proposed project. Strategic environmental assessment analyses the strategies and plans to ensure that environmental issues are properly taken into account.	Major infrastructure projects are subject to procedures of the EIA. In many SEE countries, there is ongoing work on the existence of a special law in accordance with the EIA Directive. Conducting SEA might be especially important for strategies and plans for waste, transport and tourism sectors.	In Albania a law on EIA was adopted on January 2, 2003 and is now in force. In the BiH entities, legislation provides for EIA on the basis of the EIA Directive. Both Entities have adopted by-laws on EIA.
Environmental Information systems	Monitoring systems and databases with reliable information are necessary for investment project planning.	There is continuous work on developing environmental information systems. These systems include staff, equipment and procedures for collecting and organising environmental data and synthesising it for policy makers and the public.[9]	In the former Yugoslav Republic of Macedonia, two water monitoring stations were mounted at Taor and Demir Kapija along the Vadar River. In Croatia, eight air quality monitoring stations were established as part of the State Network for Permanent Air Quality Monitoring.

It is generally accepted that environmental policy instruments should provide incentives for enterprise investments, and that enterprises should use their own resources, according to the polluter pays principle.[10] Municipalities' investments are linked to national policy goals, and the polluter pays principle is implemented through applying charges on the service users.

Looking at the economic and environmental situation in the SEE region, it can be said that user charges (an application of the polluter-pays principle) will be the most important source of financing for operation and maintenance costs of infrastructure in the long term, but affordability will constrain its use in the short term. Therefore public budgets in the short and medium term will have an essential role in financing rehabilitation and capital investments and in providing social protection to overcome affordability problems and to facilitate access to credits. Experience from the new EU member states shows that the existence of an effective domestic financing mechanism supports the implementation of environmental investment projects in a very efficient way.

The situation in relation to developing domestic environmental financing mechanisms in SEE is presented below:

In Albania, legislation from 2002 introduced the possibility of generating income from tariffs and charges. Recently the state improved its operation in relation to collecting "eco-taxes." The preparatory work was done to establish an environmental fund, but the Ministry of Finance stopped the initiative. At present there is no mechanism to distribute revenues to support financially the implementation of environmental projects. Environmental investment projects are almost fully financed with assistance from foreign sources of financing from bilateral donors and international financing institutions.

Bosnia and Herzegovina is working towards establishing environmental funds in both entities. Environmental funds will play an important role in environmental policy implementation. Currently, each entity has adopted an Environmental Fund Law. These laws have not been implemented yet; there are neither management structures nor revenue flows. Laws also need further elaboration on objectives, priorities and types of activities. At present, there is a technical assistance project (CARDS), which assists in establishing environmental funds in both entities.

From 2004, the Croatian Environmental Protection and Energy Efficiency Fund, which is an extra budgetary fund, became operational. The tool of implementing environmental policy at present focuses primarily on co-financing municipal projects on landfill. The resources of the fund come from charges levied on polluters. The fund can allocate its resources to units of local government and legal and natural persons. The fund's resources are allocated through grants, favourable loans, subsidies for interest rates on development and loans from commercial banks. The resources of the fund are primarily used to finance programmes and projects in accordance with the National Environmental Protection Strategy and National Environmental Action Plan, the strategic energy documents, and other related strategies documents and regulations.

In the former Yugoslav Republic of Macedonia, the environmental fund was established in 1998. Recently, the fund was integrated into the Ministry of Environment's structures. The Ministry continues to collect charges and continue to provide limited financial assistance in the form of grants to NGOs, public enterprises and local authorities. There is an ongoing CARDS project which aims, among others, to support the ministry in seeking to have projects funded in 2006 from the recently imposed environmental charges, and in the longer term by building capacity to ensure that EU funds can be accessed for environmental projects. It is expected that a department for investments will be established in the future, in the frame of the Ministry of Environment and Physical Planning.

In the Republic of Serbia, the Environmental Protection Fund became operational in 2005, with the initial funding from the Ministry of Finance. It is foreseen that environmental charges will become financial sources for the fund in the future. According to the Serbian National Environmental Strategy draft from the inter-ministerial consultations, all environmental revenues should be used as earmarked funds for investment in the protection and improvement of the environment. According to the Law on Environmental Protection, the revenues of the fund include: revenues from nature and resource use, pollution charges, a portion of funds resulting from privatisation, funds from multilateral and bilateral programmes, projects and other activities in the field of environmental protection and energy efficiency, reinvested income and revenues of the fund, contributions, donations, grants and assistance, and other sources. Additionally, it is foreseen that in the short term the Environmental Protection Fund

should be merged with the Water Fund in order to streamline all environmental earmarked funds.

In the Republic of Montenegro, a draft law on the environmental fund was developed and is currently under parliamentary discussions. It is foreseen that the fund will be receiving revenues from charges and fines on polluters. Further work would be needed on deciding on priorities and objectives of the fund and creating an organisational structure.

In Kosovo (territory under UN interim administration) there is an ongoing CARDS project to assist in developing a framework for establishing the fund. According to the final report of the CARDS project,[11] it is recommended that the environmental fund should be established as soon as possible, for what new legislation is needed. It was recommended that the fund would initially be managed under the Ministry of Environment and transformed into an independent body.

At present, financing from domestic sources of environmental investment projects is at the early stages of development in the SEE countries. Apart from the Croatian fund, there is no other tool in the region at the moment that would be able to support efficiently the upcoming investment challenge in relation to implementation of EU legislation.

Foreign sources of finance

Different sources of foreign financing for environmental infrastructure investment projects are available for SEE countries. Key financiers are the European Commission, multi- and bilateral donors and international financing institutions. Grants can be obtained from the European Commission and bilateral donor institutions, while other financial products, primarily loans, are provided by IFIs and to a limited extend by donor organisations. Foreign commercial banks investing in the environment in SEE countries are still quite rare.

In general the EC assists with grants via the CARDS programme. CARDS' involvement is primarily to create an enabling environment for environmental investments and to support project preparation through institutional strengthening and capacity-building activities. Only a fraction of the CARDS money is allocated for environmental investments. The chief tool to support such investments is ISPA, which is currently open only for Croatia in the SEE region. Because ISPA requires co-financing from the beneficiary countries, developing domestic financing to cover the self-provided contribution is unavoidable for the absorption of these grants. In addition, there are a number of initiatives initiated by the EC that gather donors of the region with the aim of concentrating financial assistance in a coordinated way to target strategic priorities.

Bilateral donor organisations provide mainly grants and, to a lesser extent, loans for environmental investments in SEE. They play a key role in financing project preparation activities and small-scale investments that are too small to be eligible for IFI or ISPA support. Since bilateral donor organisations are political institutions, they have development assistance programmes tailored to countries or regions with clearly set priorities. Thus the application for this support is often tied to specific requirements, for instance using services, work or equipment providers from the donor country.

Other key players in financing environmental investments in SEE are the international financing institutions. IFIs offer a wide range of financial products such as guarantees and equity finance; nevertheless loans are the most significant sort of support to the region at present. IFI loans are available under more favourable conditions than market-based loans from commercial banks. IFIs can finance capital investment costs as well as other costs related to the preparation of the project such as design and feasibility studies. It must be highlighted that investment loans are provided under strict eligibility conditions to projects of large scale and with proven economic viability.

Commercial banks are another potential source for environmental investment financing. However, these banks demand stable macroeconomic and favourable financial market conditions for environmental investments. Some examples of on-lending schemes exist where foreign banks lend on to local counterparts to finance such investments.

At present, foreign sources of financing play a very important role in financing environmental investment projects. In order to better understand the conditions for receiving financing from them, Chapter 6 is devoted to describing foreign financiers of environmental investments in the region and describes their assistance in detail.

Private sector involvement

Private sector involvement in infrastructure projects in the form of public private partnerships (PPP) is in the initial stage of development in SEE. At the moment, for the SEE countries it seems to be more adequate to create favourable conditions on the national level to involve the private sector,

rather than to try to involve the private sector on the project level. Some key issues include:

- What are the procurement and selection procedures to select private partners? Are they according to European law? How transparent is the process to ensure open market access and competition?
- What are the possibilities for the private sector to realise financial returns by guaranteeing sufficient opportunity to generate revenues?
- What are the procedures to control PPP mechanisms in order to protect public interests?
- What is the culpability between involving the private sector and the state aid rules?
- What would be the most suitable way to involve the private sector?
- How are the limits of flexibility defined in the PPP agreement? What are the rules on how financing can be used and the benefits the parties can expect from projects?
- How might the involvement of the private sector limit access to funding?

Environmental infrastructure developments

Along with introducing environmental policy tools, efforts were made by the countries to improve existing infrastructures. Examples from selected countries of achieved improvements are presented below:

- In Albania there was progress on limiting losses from the drinking water distribution system by 6 percent since 2001 together with a revenue increase of 9 percent. The revenue collection rate has improved to an average of 75 percent. Some investments are on the way regarding building the first sewerage treatment facilities in places such as Kavaja, Lezhe, Durres and Pogradec. Progress has been achieved in 2004 with the feasibility study for rehabilitation of the Durres hot spot, and the former PVC plant in Vlora was completed. Tendering procedures commenced on rehabilitating Porto Romano. A feasibility study was completed and work progressed on pollution abatement at the Balsh Oil Refinery. In Fier, the arsenic treatment from the ammonia factory was completed.
- In Croatia, water supply and protection programmes are funded through Croatian Waters, the public water management agency. The allocations for 2004 amounted to EUR 76.7 million, and for 2005 almost EUR 105 million, as approved by the Parliament.
- In Bosnia and Herzegovina, work was done on reducing environmental pollution through establishing regional sanitary landfills and rehabilitating inadequate disposal sites. A dedusting system was installed, and water treatment was improved in the cement factory of Kakanj.
- In the former Yugoslav Republic of Macedonia, there were developments to clean up illegal landfills and construct a temporary sanitary landfill in Rusino. There were also further projects initiated to rehabilitate the Lojane mine and dispose of medical waste in an environmentally sound manner.
- In Serbia, efforts were made to prepare project documentation for the sanitary remediation of waste dumps for 31 municipalities and the construction of 10 regional landfills. Local environmental action plans were prepared for 14 municipalities, and the sanitation and remediation of waste dumps for four municipalities was completed.
- The Republic of Montenegro adopted a Master Plan and Feasibility Study on Waste Water Treatment for the central and northern region and a strategy for coastal areas. According to its Master Plan for Solid Waste, Montenegro is planning 24 municipal landfills and eight regional landfills. At the moment in Montenegro, there is only one sanitary landfill.
- Kosovo (territory under interim UN administration) plans to implement three pilot sewage treatment plants in small villages as a catalyst project.

General observations

Progress with economic reforms might stimulate polluters to invest in pollution mitigation actions. Cooperation of the ministry responsible for economic reforms with the ministry of environment might accelerate this process. One example of such cooperation could be the implementation of economic instruments. Box 4 presents the overview of types of economic instruments used by the new EU member states.

Institutional reforms are important for effective implementation of policies and implementation documents. Implementing institutional reforms means introducing good governance principles based on accountability, transparency, participation and the rule of law. Key elements of good governance are presented in Box 5.

In cases of scarce public funds and continuous competition with economic and social needs and priorities, introducing a special, well targeted expenditure programmes can be seen as a way to efficiently use these limited resources. In many CEE countries, the governments have developed special expenditure programmes which are providing need-

BOX 4

Overview of types of economic instruments used by the new EU member states[12]

Air emissions: air emission charge; air emission non-compliance fee; CO_2 tax; emission trading scheme.

Water pollution: water effluent charge; water pollution non-compliance fee and sewage charges.

Waste: municipal waste user charges; waste disposal charges; waste non-compliance fees and deposit refund on beverage containers.

Waste-related product charges: packaging material, batteries/accumulators; refrigerators and refrigerants; lubricants; tires and substances/products damaging the ozone layer (CFCs), producer responsibility.

Transport: tax differentiation for leaded and unleaded petrol; product charge on transport fuels; increased import duty for used cars or without catalyses and road tolls/pricing; noise/air pollution tax on air travel.

Nature protection and biodiversity: nature protection non-compliance fees.

Natural resources and mining: natural resources or mining tax/charge and water extraction charge.

Other: Income tax/VAT allowances for environmental technologies and duty/tax allowance on import of environmental technology.

BOX 5

Key elements of good governance[13]

- **Technical and managerial competence** is needed in all governments, because civil servants need ongoing training to ensure that their skills keep pace with new challenges and requirements.
- **Organisational competence** is needed to see that the staff's skills are put to use with strengthening basic management practices.
- **Reliability, predictability and the "rule of law"** are needed becasue decisions taken by governments must be founded in laws that protect individuals and enterprises from arbitrary decisions. A reliable, predictable rule of law is essential for individual firms to make good decisions. This requires governance which is free from distortionary incentives, such as corruption, nepotism, patronage, or the capture of state institutions by narrow private interests, guarantees individual and property rights, and achieves some level of social stability.
- **Accountability** is a means of developing more efficient and effective state institutions. It is a key way to ensure that politicians and public servants use their powers appropriately, in accordance with the public interest. It is needed to clarify who is accountable for what and to ensure that institutions and civil servants are held in external scrutiny (e.g. by independent auditors). In democratic systems, politicians should be accountable for their decisions and performance, ministers to parliament, and the parliament to voters.
- **Transparency** means that decision makers, external reviewers and the general public can verify the performance and compliance with the law by government institutions and civil servants.
- **Participation** in order to make good decisions and enjoy public support, government institutions can access information about the needs and priorities of individuals, communities and private businesses.
- **Administrative capacity** means that governmental structures are able to handle the tasks arising from their responsibilities in an efficient and timely matter.

ed finance to investment projects. These programmes may be managed by both public and private agencies depending on the national circumstances. Table 4 highlights some institutional set-up possibilities for these expenditure programmes.

As is often the case, the ministries of finance, following IMF guidance, have hindered the ministries of environment in their efforts to establish environmental financing mechanisms such as environmental funds. The rationale behind this approach stems from the common fear that these instruments will lack sound expenditure management. Therefore, the discussions between the ministries often focus on the institutional set-up of such instruments — budgetary or extra-budgetary. The important lesson here is that the institutional set-up is not the most important thing (see Table 4 for possible set-ups), but rather the introduction and implementation of sound public finance. BOX 6 highlights good practices in developing environmental expenditure programmes.

In addition, the body responsible for establishment of the expenditure programme should determine before entering into any discussions the following features of such a programme, including:

- how the programme will be integrated into the overall system of environmental financing in the country so that it complements other sources of finance;
- which institutional set-up will promote the achievement of desirable objectives and will be acceptable for all stakeholders in the process;

TABLE 4

Institutional set-up possibilities for environmental expenditure programmes[14]

OPTION	ACTIVITIES
Government departments	May be responsible for the direct purchase of goods and services or for financing of specific projects included in the budget.
Project implementation unit	Is usually established within a government department to implement a specific government expenditure programme included in the budget.
Autonomous/decentralised government agency	Can be financed from the budget. It is created to separate the delivery of services or administrative tasks from policy formulation.
Special purpose fiscal unit	Is independent, but has restricted taxing powers (e.g. a river basin water agency).
Public utility	Has the authority to collect user charges and the responsibility to develop, maintain and operate collective infrastructure.
Budgetary fund (1)	Has its own management structure and autonomous, earmarked source within the budget. It can be established within the government at the sectoral or regional level, and can be co-financed by transfers from the general budget.
Budgetary fund (2)	Is managed outside the government with autonomous, earmarked revenue source. It can have independent legal status, although its revenue and expenditure plans are approved annually in the budget law.
Extra-budgetary fund	Is managed outside the government, with its own, autonomous, earmarked revenue source. It has an independent legal status and assets.
Special purpose government-controlled fund	Is owned by the government, but established outside the government departments and capitalised by discrete, one-off budgetary transfers.
Independent intermediary for the government expenditure programme	Bears a contractual obligation to disburse government resources (e.g. grants or loans) on terms and conditions specified in the with the agreement government.
Government – (co)-owned public fund established to manage expenditure programme	Is co-financed from external loans or grants. It can have a legal status of a trust fund, a foundation, an association or a commercial code company. It can combine domestic and international sources of finance. External financiers usually require a high level of managerial autonomy.
Directed credit funds	Is established as financial intermediaries by either government donor organisations or international financing institutions.

BOX 6

Good practices in developing environmental expenditure programmes[15]

The following steps should be followed when developing an environmental expenditure programme:

- **Define the priority environmental objective.** The objective should be specific, measurable, realistic and time-bound.
- **Determine if public expenditures are needed to achieve these objectives.** If they are not, use other policy instruments such as permits or taxes to achieve environmental policy objectives, saving public money for other uses.
- **Define the approach to identifying and prioritising projects.** Selecting the projects that will best achieve the objectives of the expenditure programme is crucial for the success of the programme.
- **Define the sources of funds, the size of financial envelope and an expenditure programme.** An expenditure programme should be an integral part of a larger environmental programme aimed at achieving specific priority objectives. It should include, among others, specific objectives, cost estimates, a description of eligible project types and beneficiaries, terms of financing, procedures, principles and criteria of project appraisal and selection, procurement rules, time frame, and indicators of performance.
- **Select the best institutional arrangement for managing the expenditure programme.** Simple expenditure programmes (e.g. education) may be managed directly by assigning additional responsibilities to existing government institutions at various levels. For larger programmes that involve financing capital investments, special institutional arrangements may be required. Various implementing agencies can be appointed.
- **Contract and control an implementing agency to manage expenditure programme.**
  - Control if environmental effectiveness is achieved.
  - Control if fiscal prudence is kept.
  - Control if management efficiency is maintained.

- how big the financial envelope of the fund should be so that the existing financial gap is decreased;
- which projects should be financed, and under which criteria they should be selected;
- what the lines of responsibility would be among technical staff, management and supervisory bodies;
- how much the operational costs of the programme would be; and
- which stakeholders should be involved and how to ensure the transparency of programme's operations.

More information about possible solutions to these questions can be found in the report *Establishing an Environmental Fund; Training to the republic of Montenegro*[16] on the website <www.rec.org>. The report is based on the lessons learned from the training provided to the key stakeholders of the Republic of Montenegro on establishing the fund. Although the report is related to the specific situation in Montenegro, the lessons are universal.

Endnotes

1 Information on SEE country developments is based on SAP progress reports from 2003, 2004 and 2005 (see list of references).

2 According to the SAP reports.

3 OECD 1999.

4 OECD 1999.

5 The National ISPA strategy for the environmental sector was developed in 2005 with an indicative list of priority projects. Croatia will use a grant of EUR 30 million allocated from the ISPA 2005/2006 programme to implement two infrastructure projects (in the water sector the project has already been approved and in the waste sector the project is being evaluated) and for Technical Assistance projects, for the preparation of investment projects for a new pre-accession programme (IPA).

6 Magulis and Vetleseter 1998.

7 From information about SEE countries based on SAP Progress reports – see the list of references.

8 These charges include charges levied on polluters of the environment (emissions of SO_2 and NO_2) charges for burdening the environment with waste (charges on landfilling non-hazardous and industrial waste, and charges on the production of hazardous waste), and special environmental charges levied on motor vehicles.

9 Rump 1998.

10 OECD 1999.

11 *Final report: Framework for the Establishment and Management of an Environmental Fund in Kosovo 2005*. Eptisa International for CARDS.

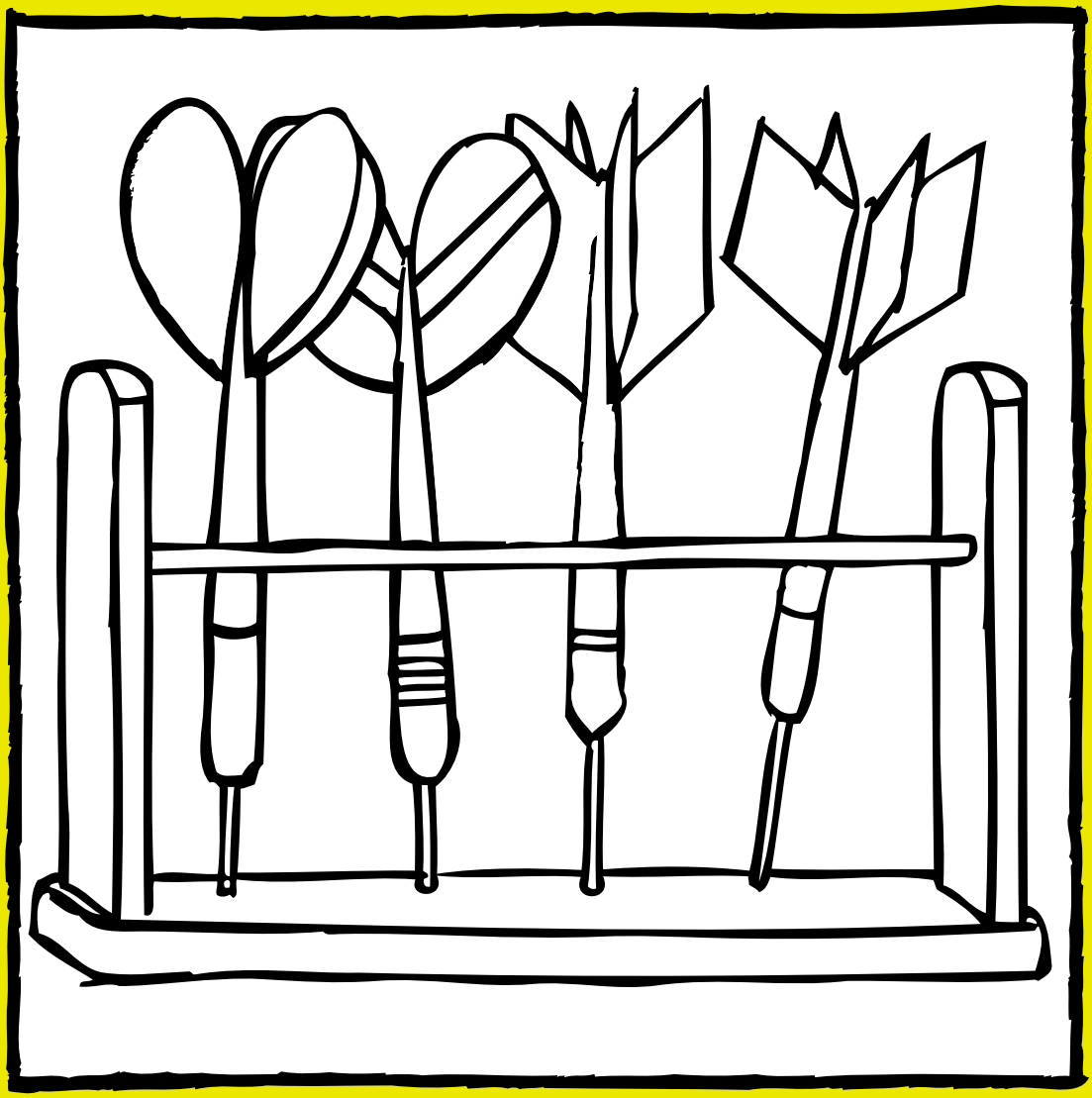
12 OECD 1999.

13 OECD 1998.

14 OECD 2003.

15 OECD 2003.

16 The report was prepared by the Federal Ministry of Agriculture, Forestry, Environment and Water Management in Austria and the Regional Environmental Center for Central and Eastern Europe.



Chapter 3
Infrastructure Investment Challenge

Chapter 3: **Infrastructure Investment Challenge**

Implementation and enforcement of environmental legislation has become one of the most important areas of work for South Eastern European countries, as it is an essential part of the recommendations from the recent Standardisation and Association process. The SAP requires substantial financial resources, which have to be efficiently allocated. In order to identify where the financial challenge will be the most significant for environment, this chapter looks at the investment needs as required by EU legislation and highlights investment implications for the SEE countries.

Investment needs and benefits

Analysing the state of environment in the SEE countries exposes the deficiencies in the environmental infrastructure. Experiences from the new EU member states show that the development of realistic, long-term national strategies for implementing the environmental acquis was a crucial step in the overall process, assisting the mobilisation of domestic and foreign sources of finance. In the case of the new EU member states, overall assistance from the European Commission and foreign sources constituted a small proportion of the total need.[1]

It was estimated that the candidate countries need to spend on average between 2 and 3 percent of their GDP over several years to achieve full implementation. In order to understand the range of investment resources needed, Table 5 presents estimates of the environmental financing needs in the new EU member states.

Implementation of the environmental acquis also brings significant benefits to the countries. Based on a study carried out in the candidate countries (see Table 6) it can be seen that there are significant annual benefits for the countries from full compliance. Considering that the implementation of the acquis is achieved gradually over a number of years, it can be concluded that the long-term benefits of compliance are much higher than the costs of compliance.

Infrastructure investment implications of the EU Directives

Experience from the accession process shows that certain environmental directives will be especially difficult to implement, not only because of the investment required, but also because of the amount of infrastructure to be built. This section provides an overview of investment heavy directives, with an indication of the infrastructure

TABLE 5

Estimated environmental financing needs in candidate countries in 2001 (in million euros)[2]

Countries	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	Total
Estimated financing needs in 2001	8,610	1,086	6,600-9,400	4,406	4,118-10,000	1,480-2,360	1,600	130	22,100-42,800	22,000	4,809	2,430	79,260-110,001

Note: Total values do not add up, as in the source document

TABLE 6

Annual benefits of full compliance by candidate countries[3] (in million euros, based on low and high estimates)

Countries	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	Total
Low	290	65	2,390	75	985	95	290	24	4,210	1,270	690	240	12,500
High	2240	310	7,220	490	7,080	570	1,300	130	21,400	9,800	3,340	1,120	69,300

Notes: Total may not add to sum of parts given rounding. These values relate to the full benefits to the candidate countries, from both their own actions and as a result of other candidate countries implementing the EU directives.

investment implications for the SEE countries. Although there are more EU directives considered as investment heavy, for the purpose of this report, only directives which have implications on infrastructure development are considered and discussed, as listed in Box 7.

Difficulties in complying with the above-mentioned directives are also reflected in a number of transitional periods which were granted to the new EU member states (see Figure 1). Candidate countries can negotiate transitional periods for EU directives, which would postpone the compliance date for that particular country. It has to be noted that, in practice, transitional periods are limited in scope and time bounded. The candidate countries managed to negotiate transitional periods for only a limited number of directives. Considering only key EU investment-heavy directives, transitional periods were granted for urban wastewater treatment, drinking water, discharges of dangerous substances into the aquatic environment, integrated pollution prevention and control, large combustion plants, landfills, and incineration of hazardous waste.

BOX 7

Investment heavy directives reviewed

Air sector

- Air Quality Directive (96/62/EC);
- Large Combustion Plants Directive (2001/80/EC)
- Integrated Pollution Prevention and Control Directive[4] (96/61/EC)

Waste sector

- Landfill Directive (1999/31/EC)
- Incineration Directive (2000/76/EC)
- Hazardous Waste Directive (91/689/EEC)
- Sewage Sludge Directive (86/278/EEC)

Water sector

- Drinking Water Directive (98/83/EC)
- Urban Waste Water Treatment Directive (91/271/EEC)
- Dangerous Substances in Water Directive (76/464/EEC)
- Nitrates Directive (91/676/EEC)
- Bathing Water Directive (76/160/EEC)

Note: Framework directives are not listed separately, but are described in the text for their indirect investment implications.

Air Sector

European Union air quality policy since 1970s aimed at controlling emissions from mobile sources, improving fuel quality and promoting and integrating environmental protection requirements into the transport and energy sectors. The EU uses different ways to reduce exposure to air pollution, for example through legislation, reducing cross-border pollution or developing a thematic strategy like Clean Air for Europe (CAFE), which assists in reducing exposure to air pollution.

Considering the EU legislation addressing air quality and the experiences of the new EU member states, the following directives pose a significant investment challenge and require infrastructure development and upgrade:

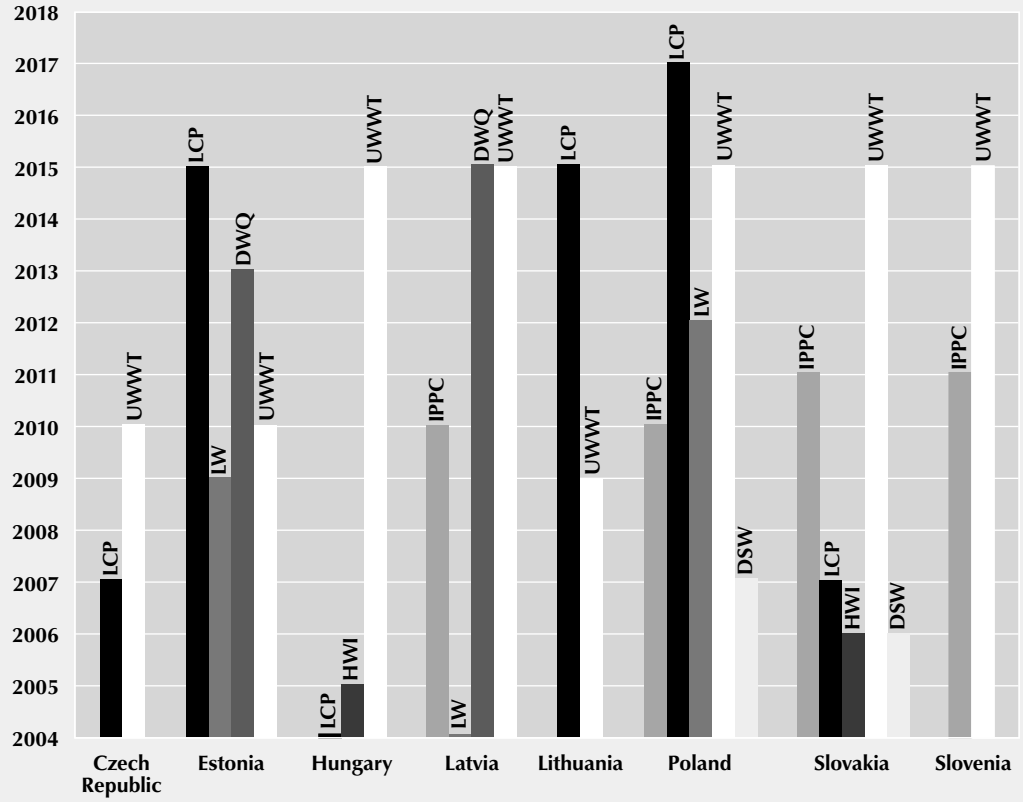
- Air Quality Directive (96/62/EC)[5] with Daughter directives;
- Large Combustion Directive (2001/80/EC); and
- Integrated Pollution Prevention and Control Directive.[6]

The Air Quality Directive

This directive sets a general policy framework for dealing with air ambient quality. It introduces air quality standards for a range of pollutants (see

FIGURE 1

Transitional periods granted for selected measures for eight new EU member states



Note 1: Negotiations on Chapter 22 on the environment were closed in December 2002 for these new member states. Transitional measures were granted when it was proven that significant infrastructural adaptation was required over a longer period over time. If no transitional period was granted, the deadline for compliance was the date of accession (May 1, 2004) unless otherwise indicated below.

Note 2:

- **IPPC**: Integrated Pollution Prevention and Control. If no transitional period is granted, the deadline for compliance for existing installations (pre-1998 installations) is 2007.
- **LCP**: Large Combustion Plants. A transitional period applies to plants put into operation after 1987 in the Czech Republic, Hungary, and Slovakia, and to plants put into operation prior to 1987 in Estonia, Lithuania and Poland (2015). For Poland, a transitional period for dust was granted until 2017. If no transitional period is granted, the deadline for compliance is 2008 (2016 for dust).
- **LW**: Landfill of Waste. A transitional period was granted to Latvia for landfills of hazardous waste, to Poland for landfills of municipal waste, and to Estonia for landfills of oil shale hazardous waste. If no transitional period is granted, the deadline for compliance for landfills of municipal waste is 2009.
- **HWI**: Hazardous Waste Incineration. **DWQ**: Drinking Water Quality. **DSW**: Dangerous Substances in Water. If no transitional period is granted, the deadline for compliance is the accession date.
- **UWWT**: Urban Waste Water Treatment. If no transitional period is granted, the deadline for compliance is 2005.

Note 3: Source information: Enlargement negotiations on Chapter 22 Environment, December 2004 at <http://europa.eu.int/comm/enlargement/negotiations/chapters/chap22/index.htm>.

Comprehensive Country Monitoring Reports at <http://europa.eu.int/comm/enlargement/report_2003/>. Report on the results of the negotiations on the accession of Cyprus, Malta, Hungary, Poland, Slovakia, Latvia, Estonia, Lithuania, the Czech Republic and Slovenia to the European Union, prepared by the Commission's departments, January 2003.

Box 8), with emission limit values (ELVs) described in detail in daughter directives.

Recent studies on the effectiveness of the European Air Quality Directive[7] highlighted several positive effects which could be observed in the EU member states, as an effect of compliance with EU air quality policies. The studies concluded that EU air quality legislation has contributed significantly to improving air quality. All types of air-quality measures were evaluated as effective and were considered at least well enforced. Stationary source controls were considered to be better enforced than controls over mobile sources. The EU-15 has succeeded in dramatically reducing emissions of SO_2 and NO_X since 1980. EU policies appear to have had strong net economic benefits and have had no adverse effect on EU global competitiveness.

Implementing the directive

The first step in implementing the directive should be through designating the competent authorities and bodies responsible for implementing the directives, assessing ambient air quality, approving the measuring devices, ensuring the accuracy of measuring devices with the requirements of European quality, assuring overall standards, analysing assessment methods and coordinating Community-wide quality assurance programmes on their territory. Secondly, there is a need to develop a system for assessing the quality of ambient air based upon common methods and criteria. Once the system is developed, preliminary assessments of ambient air quality must be carried out, along with mandatory assessments in urban areas with a population of more than 250,000 and in zones where pollutant levels exceed upper assessment thresholds of limit values. The areas should be divided into three groups based on assessment results:

- **Category A**: Prepare plans or programmes to achieve compliance with the limit values within the time limit given in the daughter directive for the respective pollutant. These plans and programmes need to be linked to the regional development policies of the zone/agglomeration and can assist in looking for financial assistance to finance measures identified in the plan.
- **Category B**: Take actions to achieve compliance with the limit values within the time limit given in the daughter directive for the respective pollutant.
- **Category C**: Maintain status quo.

BOX 8

Pollutants targeted by the Air Quality Directive

Existing legislation: sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead, benzene and carbon monoxide, ozone.

Planned legislation: arsenic, cadmium, mercury, nickel, and polycyclic aromatic hydrocarbons.

Expensive monitoring networks should not be established in areas with good ambient air quality. Finally, a system for gathering, reporting and publicising information, including dissemination to the public, should be developed.

The SEE countries must look ahead and take also into consideration provisions of CAFE, a programme of technical analysis and policy development that underpinned the development of the Thematic Strategy on Air Pollution under the Sixth Environmental Action Programme. This thematic strategy was agreed in September 2005.

Thematic strategies represent the next generation of environmental policy, taking a medium-term perspective to around 2020. The strategy sets clear environmental objectives and sets aims to reduce emissions of the following pollutants: particulate matter: ground level ozone, ammonia, NO_X, SO_X and VOCs. Some of these areas are already covered by existing EU directives.

The strategy affects the sectors of agriculture, transport and industry. Therefore there might be new investment implications for the SEE countries, for example: upgrading small combustion plants, reducing emissions of fuel stations, and reducing road vehicle emissions and airplane emissions. Investments will be also needed in the agriculture sector for cattle farming and in the pig and poultry sectors in order to minimise ammonia emissions.

Investment implications

Conducting preliminary assessments and then continuous monitoring of ambient air quality requires public sector investment in air quality monitoring equipment and modelling capacity. In areas with poor ambient air quality, it might be difficult to identify investment projects before conducting the assessments. Therefore, the programme for the particular area which will identify the investment projects should be designed based on the assessment. Public and private sector investment is needed in

areas where pollutants are above allowable norms to bring down emissions of polluting substances to achieve compliance in particular localities. In relation to specific pollutants (e.g. arsenic, cadmium), investment projects might be identified earlier based on the status of industrial activities.

Large Combustion Plants Directive (2001/80/EC)[8]

The Large Combustion Plants Directive introduces standards for combustion plants with a rated thermal input greater than 50 megawatts, irrespective of the type of fuel used. The directive aims to combat acidification, eutrophication and ground-level ozone through the reduction of SO_2, NO_x and dust emissions from large combustion plants. New plants must comply with strict emission limits, while existing combustion plants must reduce total national emissions. Additionally, the directive encourages co-generation of heat and power and introduces limit values for the use of biomass as fuel. While all new combustion plants must comply with the directive requirements straight away, there are two options for installations put in operation before 1987. For these older installations, countries can choose whether these installations will comply with emission limit values (ELVs) or will operate based on a national plan that sets annual emissions levels.

By complying with the directive, major health benefits[9] can be expected. Health is adversely affected by exposure to high levels of SO_2, including breathing problems, respiratory illness, weakening of the lungs' defences, and worsening respiratory and cardiovascular disease. Among others, there are ecosystem benefits to be gained through improving the well being of society and the quality of life for those living in affected areas. Wider economic benefits can also be found, including industries benefiting from the sale and production of cleaner fuel and cleaner technology. The tourism industry also stands to gain economically where improving lakes, forests, streams and cities adds value to industry. For example, in Poland benefits from a reduced impact of acid rain on forest and fresh water ecosystems may increase tourism in these areas. Also, a new desulphurisation installation will have to be built for full implementation, which benefits firms that produce equipment for this type of installations.

Implementing the directive

The key task in implementing the directive is to ensure that existing plants are modified to meet the required emission levels and that new plants comply with the specified emission limits. The affected installations are usually power plants, oil refineries, industrial furnaces and large boilers. Countries have to designate institutions responsible for identifying all installations falling under the directive, separately for old installations (in operation before 1987) and newer ones. The countries have to design procedures that require operating licences. Following this, the total annual emissions of SO_2 and NO_X has to be determined and an inventory of emissions conducted.

It is important to take into account the economic viability of older plants in relation to the oil and electricity markers when deciding whether to invest in upgrades for older installations. Once the plants to be upgraded are identified, the investment cost of retrofitting should be estimated. Additionally, a system for inspection and monitoring has to be established.

Implementation of this directive should be seen in a broader context of the generation capacities of SEE countries. It is estimated[10] that significant investments will be needed in SEE for power plant rehabilitation and environmental controls. Official plans call for the rehabilitation of 11,574 megawatts[11] of existing capacity to extend their operating life and restore their efficiency and reliability. The investment is estimated at EUR 4.8 billion. Compliance with EU environmental directives would require an additional EUR 2.3 billion. Special attention should be paid to the cost-efficiency of rehabilitating existing plants, for example where the cost-efficiency of planned projects is reduced if flue gas desulphurisation is planned as part of the project.

Investment implications

Installations put into operation after 1987 must comply with the directive standards from the day of EU accession, and therefore upgrading them should be a priority. In general, investments focus on introducing new processes for cleaner technologies (i.e. retrofitting) and introducing air pollution control systems in the installations

Waste Sector

EU waste-related policies are aimed at cutting the amount of waste generated through new waste prevention initiatives, better use of resources, and encouraging a shift to more sustainable consumption patterns. To do so, EU waste policy introduces the "waste management hierarchy." This approach is based on three principles. The first principle,

waste prevention, emphasises decreasing the amount of waste generated and reducing its hazardousness. It is closely linked to improving manufacturing methods and influencing consumers to demand greener products and less packaging. When waste cannot be prevented, as much of the material should be recovered as possible, preferably via recycling. Selected waste streams are treated as a priority: packaging waste, end-of-life vehicles, batteries and electrical and electronic waste. Where waste cannot be recycled or re-used it should be safely incinerated in a way that recovers as much energy as possible, and landfilling should be used as a last resort. Certain types of waste are banned from landfills, such as used tyres, and there is a push to reduce the quantities of biodegradable waste.

Implementing waste directives also brings considerable benefits. The main benefits identified[12] for the new EU member states are:

- less pollution to groundwater and surface water from leakage of unprotected landfills and, as a result, lower risks of contaminating drinking water;
- reduced health and explosion risks, as well as less impact on global warming as methane emissions from landfills are captured and made to generate energy, while existing landfill sites will have to be upgraded and illegal dumping sites closed;
- benefits to eco-systems and other environmental resources as emissions from waste activities into air, water and soil are reduced and the recovery of energy is increased through the Incineration Directive;
- increased efficiency in the use of material and reduced production of primary material as a result of higher levels of recycling, which is a result of the targets of the Packaging Directive as well as diversion targets from the Landfill Directive;
- lower costs for waste collection, treatment and disposal, as less waste will be produced; and
- better management and monitoring of waste streams through the Waste Framework Directive.

There are directives under preparation which might become relevant for investment infrastructure development in the future, such as on composting of waste. Considering the overall EU waste-related legislation, some directives related to infrastructure development and upgrade might pose a special challenge to the public sector in SEE, including:

- Landfill Directive (1999/31/EC);
- Incineration Directive (2000/76/EC);
- Hazardous Waste Directive (91/689/EEC); and
- Sewage Sludge Directive (86/278/EEC).

Landfill Directive (1999/31/EC)[13]

The primary aim of the Landfill Directive is to prevent and/or reduce the negative effects on the environment from the landfilling of waste as much as possible by introducing stringent technical requirements for waste and landfills.

As highlighted in the benefits study[14] on the situation in the Czech Republic in 2001, a relatively large amount of waste was produced: around 52 million tonnes annually (including a high proportion of hazardous wastes, although this fraction is affected by the stricter parameters for classifying this type of waste). The predominance of landfilling is reflected in the fact that about 21 million tonnes of all kinds of waste were deposited in landfills in 1996. Therefore, general minimisation and diversion from landfills are likely to bring health benefits. A low proportion of waste is used as a source of secondary raw materials and energy at present — bio-waste from households is only collected separately in three Czech cities. Increased recycling, if adopted to comply with the targets, would bring health benefits. There are no significant landfill gas capture facilities at present in the Czech Republic, but such facilities are expected to be installed as the directive is implemented.

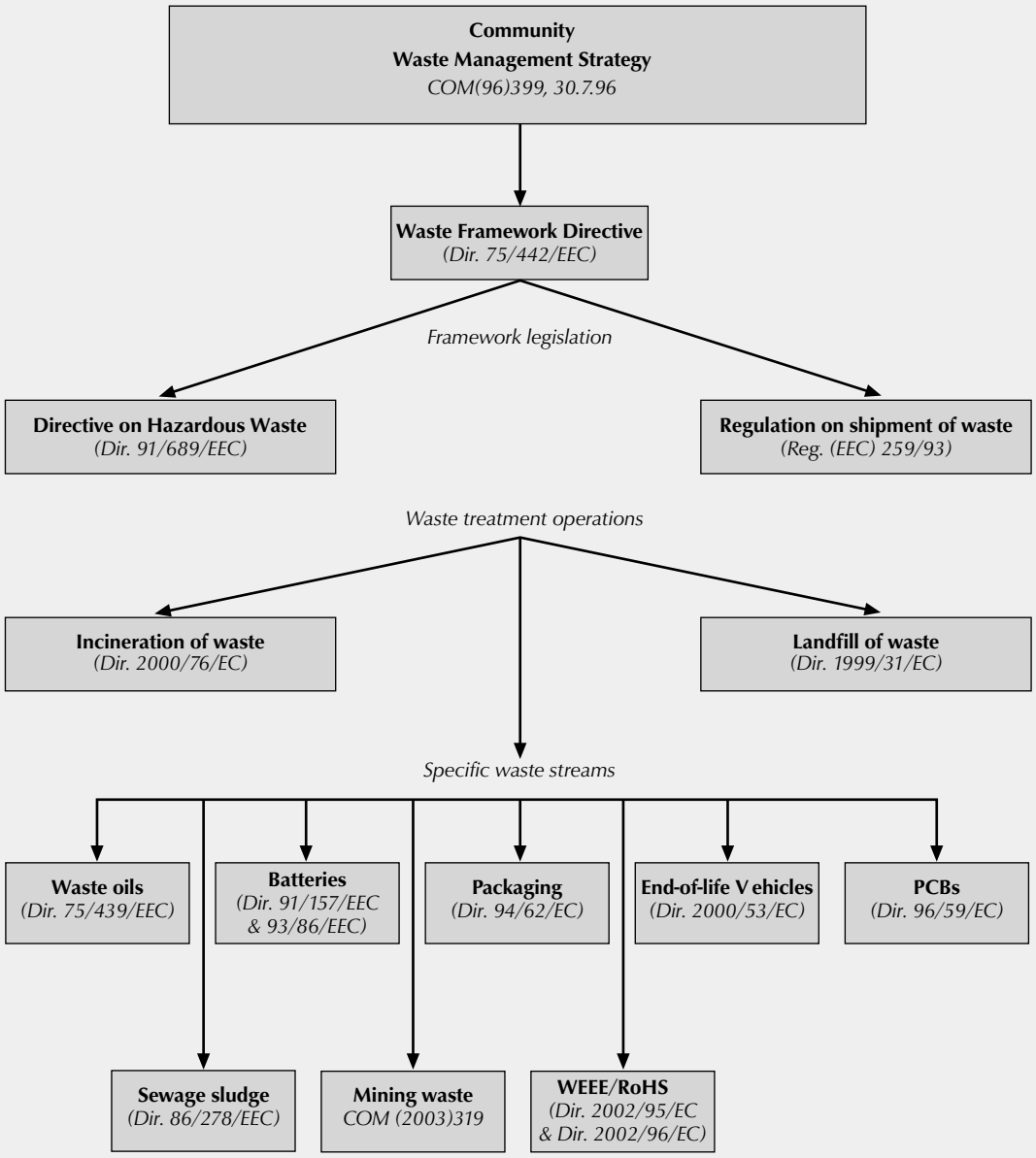
All benefits of implementing the directive will be linked to the approach adopted in the countries as related to the priority actions. For example, the priorities for Croatia in the waste management sector, according to the National Waste Management Strategy adopted in October 2005, are: establishment of complete system of waste management; remediation and closure of existing landfills; remediation of locations of highly polluted environment; development and establishment of up to 21 waste management centres; and establishment of complete information systems for waste management.

Implementing the directive

Implementation of the directive is time-consuming and cost-intensive. Especially in SEE, where waste landfilling practices are far from meeting European standards, treatment of waste

FIGURE 2

Overview of EU waste management legislation



according to the directive's requirements will be a great challenge. Because it introduces different categories of waste, the different types have to be landfilled at special designated sites (e.g. landfills for hazardous waste, for non-hazardous waste or for inert waste).[15] Therefore, storing wastes of certain types is not allowed at other types of landfills.

The directive imposes the development of waste management strategies for different types of waste. All existing landfills that do not meet the directive's requirements would need to be upgraded to meet them or closed. Additionally, the number of landfills to be constructed to comply with the general EU waste management policies has to be assessed. As the directive pays special attention to reducing biodegradable waste, it should be assessed how the requirements of reducing the amounts of biodegradable waste will be achieved and what types of infrastructure for biodegradable waste have to be constructed, especially for composting. Additionally, the infrastructure for methane collection and burning should be designed for both existing and new landfills. Before being accepted to the landfill, waste should be pre-treated, for example by sorting usable materials. For landfills marked for closure, financial resources for remediation and after-care have to be ensured. Moreover, alternative methods of utilisation are needed for waste streams which are banned from landfills (e.g. tyres).

The European Union is preparing a thematic strategy on the prevention and recycling of waste. The strategy aims at developing prevention targets and measures needed to achieve them. For waste recycling, the strategy will identify ways to promote recycling where the potential exists for additional environmental benefits and then analyse options for achieving recycling objectives in the most cost-effective way. Following the adoption of this thematic strategy, new legislation and other measures will be put in place, which will have investment implications.

The strategy is at an early stage of development, and therefore detailed investment implications cannot be determined yet. The strategy might have investment implications for infrastructure related to waste sorting and recycling.

Investment implications

One of the important investment implications would be to upgrade existing landfill sites to meet EU standards. Considering that only a few landfill sites in SEE have been built according to basic sanitary principles, another challenge will be to find funding for the investment in closing these dumps and providing after-closure protection. It seems that the biggest burden will be on the public sector (i.e. municipalities) to develop and invest in waste management systems which would include sorting stations, recycling facilities, biodegradable waste treatment facilities and proper landfill sites. The private sector will also be affected by the requirement to develop hazardous waste landfill sites and inert waste landfill sites, but these facilities will be developed in close cooperation with the public sector.

Incineration Directive (2000/76/EC)[16]

The Incineration Directive provides a single legislative framework for the incineration and co-incineration of non-hazardous and hazardous waste. The directive aims at reducing the negative effects to the environment caused by the incineration and co-incineration of waste as much as possible. This is to be achieved through stringent operational conditions and technical requirements, and by setting up emission limit values for waste incineration and co-incineration plants. The benefits of implementing the directive can be limited by the number of installations available in a particular country.

Implementing the directive

The countries have to introduce permitting procedures for incineration and co-incineration plants, technical and technological requirements for incineration facilities, monitoring requirements, and procedures on the public right of access to information. Experience shows that constructing incinerator plants usually draws public opposition. Therefore, emphasis should be placed on the transparency of information given to the public and public access to all information about these facilities. An opportunity exists to use cement plants for incinerating waste.

Investment implications

Monitoring equipment must be installed to monitor parameters, conditions and mass concentrations relevant to the incineration or co-incineration process. Existing incineration and co-incineration plants have to be upgraded to meet specified standards, while all new facilities must be designed according to the directive's standards. A special challenge might be faced by all small industrial and hospital incinerators, for which upgrades might not be cost-efficient.

Hazardous Waste Directive (91/689/EEC)

The Hazardous Waste Directive addresses the handling of hazardous waste and requirements for keeping record of such wastes. Implementation of the directive should lead to better monitoring and management of hazardous wastes. There are obvious health benefits to be gained, as the risk of contamination of ground and surface waters would be reduced. The risk of contaminating marine and terrestrial ecosystems would also be reduced. Better management of hazardous waste would like minimise the risk of accidents and, through this, minimise the costs of clean-up operations.

Implementing the directive

Countries have to design and implement systems for recording all hazardous wastes dumped on specially constructed hazardous waste landfill sites. Special attention is paid to recovering hazardous waste and their transport. The competent authorities are to draw up — either separately or in the framework of their general waste management plans — plans for the management of hazardous waste and shall make these plans public. Managing hazardous waste must be well integrated with the overall waste management strategies to ensure proper treatment of this waste stream.

Investment implications

The handling of hazardous waste requires special attention in relation to the infrastructure for collecting, transferring and final disposal of these waste streams. Infrastructure has to be developed for the safe disposal of hazardous waste streams. Infrastructure and pre-treatment requirements for this waste stream are covered by the landfill directive.

Sewage Sludge Directive (86/278/EEC)[17]

The Sewage Sludge Directive regulates the use of residual sewage sludge in agriculture. It sets the maximum limit values for concentrations of heavy metals in soil, sludge to be applied to soil and conditions to be applied in the use of sludge. The directive aims at preventing the harmful effects of sewage sludge use in agriculture on soil, vegetation, animals and humans and to encourage the correct use of sewage sludge.

Implementation of the directive will limit the levels of heavy metals in sewage sludge applied to land and, consequently, will minimise the risk of heavy metals contaminating agricultural soil. By minimising heavy metal content in soils, health benefits will result from the ensuing purity of crops from this land. Additionally, the quality of agricultural production might be improved.

Wider economic benefits include the reduction of costs of sewage sludge treatment. From an agricultural point of view, proper application of sewage sludge will benefit the soil from additional organic matter without the problems associated with heavy metals.

Implementing the directive

Before the directive is implemented, the capacities of laboratories need to be assessed to ensure that they will be able to test the sewage sludge. After estimating the amount of sewage sludge, the available land surface for agricultural usage should be assessed. If the treatment capacities are insufficient, then the development of infrastructure should be planned.

The directive should be implemented in close cooperation with the authorities responsible for implementing the Urban Waste Water Treatment Directive, as the amount of sewage sludge will depend on the capacities of wastewater treatment facilities in use and the quality of sewage.

Investment implications

The investment implications of this directive are mainly linked to constructing facilities for treatment of sewage sludge, including incinerators or other facilities to treat those types of sludge that cannot be used for agricultural purposes. Additionally, monitoring infrastructure has to be developed to test the quality of sewage sludge. As a result of implementing other waste-related directives, the number of available landfills may be decreasing, while the volume of sludge is growing.

Water Sector

The European Water Policy aims at cleaning polluted waters and ensuring that clean waters will remain clean. The New Water Framework Directive is an operation tool setting the objectives for water protection. The directive coordinates objectives for all detailed directives which deal with particular sources of water pollution or with particular pollutants. The new policy expands the scope of water protection to all waters, surface water and groundwater. Deadlines are set for achieving a good status of water. Water management is based on river basins. A new approach has been introduced for combining emission limit values with quality standards. The new policy

stresses the polluter-pays principle and proper water pricing. The policy also focuses on getting citizens more closely involved. The Water Framework Directive provides a planning and institutional framework for guiding the implementation of water sector directives.

At the same time, significant benefits can be identified resulting from implementing directives. There are benefits from the availability of drinking water and its improved quality; recreational benefits from cleaner coasts, lakes and rivers for bathing; eco-system benefits from less pollution into water; as well as benefits from improved quality of water resources that are used for commercial purposes.

Drinking Water Directive (98/83/EC)[18]

The Drinking Water Directive concerns the quality of water intended for human consumption. Provisions of the directive relate to all individual supplies of water intended for drinking, including cooking, food preparation and manufacturing.

The directive is based on a water quality objectives approach. It aims to protect human health from the adverse effects of contaminated drinking water. It also aims to prevent the deterioration of the quality of water intended for human consumption and waters used for drinking water production. It emphasises providing adequate information to consumers about their water quality.

Several health benefits will result from the implementation of the directive. For example, the removal of lead pipes should bring long-term health benefits. The reduction of microbial contamination will bring about reductions in the incidence of disease proportional to the reduction in contamination. The directive will also result in benefits for individual customers through the provision of safe drinking water, which is viewed by many as a basic human right.

Implementing the directive

Implementation of the directive will require identification and assessment of the current status of infrastructure for provision of water services and drawing up a plan for upgrading infrastructure. It also requires careful assessment of losses resulting from leakage and theft. The infrastructure upgrade will be mainly in the hands of municipalities or public utility companies delivering water.

While upgrading the system of supplying drinking water, special attention should be paid to conserving water resources. Public campaigns on how to save water should become part of the activities of utility companies. Additionally, special attention should be paid to cooperating with authorities responsible for sewage collection and treatment, as constructing water supply systems should be accompanied by sewage connection infrastructure.

Investment implications

Upgrading water supply systems is needed to minimise pollution risks and to provide adequate service. The equipment of water treatment stations needs to be upgraded in order to remove all substances listed by the directive from water. There will also be a need to have efficient monitoring infrastructure to measure the quality of water delivered to customers.

Urban Waste Water Treatment Directive (91/271/EEC)[19]

The Urban Waste Water Treatment Directive deals with the collection, treatment and discharge of urban wastewater from agglomerations of different sizes, as well as aspects of treatment and discharge of biodegradable wastewater from certain industrial sectors. The directive was amended by Directive 98/15/EEC in regard to certain requirements for discharges from urban wastewater treatment plants to sensitive areas which are subject to eutrophication. The main objective of this directive is to protect the environment against the adverse effects of wastewater discharges. The directive will assist in minimising the risk of health problems coming from poor water quality.

According to the benefits study,[20] in the case of Latvia the quantity of wastewater that has been discharged without any form of treatment decreased by 90 percent between 1990 and 1998. This improvement has led to an overall improvement in inland surface water and seawater quality. To improve water supply and wastewater treatment in small and medium-sized towns and rural areas in Latvia, the state programme Water Supply and Sewerage in Medium Sized and Small Towns in Latvia was commenced by the Ministry of Environmental Protection and Regional Development in 1995. This programme is expected to lead to significant health benefits.

Implementing the directive

The implementation of the directive focuses on two elements. On one hand it ensures appropriate technical infrastructure, and on the other it establishes emission limit standards for concentrations

of specific substances in urban wastewater discharges, as well as for discharges from certain industrial sectors. The implementation of the directive requires the establishment of implementation programmes. The directive also requires the establishment of both "sensitive areas" and "less sensitive areas," which will be influenced by the quality of discharged water. Special attention should be paid to the treatment of sewage sludge according to the Sewage Sludge Directive when constructing more wastewater treatment plants.

Investment implications

The infrastructure to be developed is mainly in the hands of municipalities and their public utilities. There is a need to upgrade sewage collection networks and construct wastewater treatment plants. Monitoring equipment has to be installed to control the effluent quality of water.

Dangerous Substances in Water Directive (76/464/EEC)[21]

The Dangerous Substances in Water Directive aims to reduce certain substances from being discharged to the aquatic environment and to reduce water pollution. The directive is accompanied by several daughter directives which give detailed parameters of the substances being discharged. The health benefits will depend upon the degree to which individual communities are currently exposed to these substances in water. Contamination of waters from toxic substances will reduce the amenity value and tourism development benefits to local communities, as this restricts water use.

Other benefits arise from cleaner resources, which reduces costs to industry (e.g. pre-treatment needs for water), from cleaner resources (e.g. waters used for tourism), from eco-efficiency through the use of clean technologies (leading to greater profitability), and from industries which supply equipment for the removal of dangerous substances prior to discharge.

Implementing the directive

The directive requires setting up programmes to reduce the discharge of dangerous substances. Point sources of pollution need to be identified, and monitoring systems need to be established. The directive should be implemented in close cooperation with the IPPC Directive and in the broader context of the Water Framework Directive.

Investment implications

Municipalities and industrial companies will have to invest in cleaner technologies as well as in the treatment and pre-treatment of wastewater for certain substances. Water quality monitoring equipment will also be needed.

Nitrates Directive (91/676/EEC)[22]

The Nitrates Directive aims to reduce water pollution caused or induced by nitrates from agricultural sources and to prevent further such pollution. Implementation of the directive will minimise the risk of health problems related to nitrates. Agricultural sources of nitrates arrive in the drinking water supply in a number of ways, and several EU countries estimate that it will be five to 10 years before any effects of the directive will be felt in their territories. The uncertainty associated with these estimates is also high and depends largely on weather patterns and local geology.

Implementing the directive

The directive promotes good practices in agriculture, including use of fertilisers and manure, with a balance between crop needs, nitrogen inputs and soil supply, frequent manure and soil analysis, mandatory fertilisation plans and general limitations per crop for both mineral and organic nitrogen fertilisation.

The directive requires detection of polluted or threatened waters by nitrogen, according to this assessment; vulnerable zones should be designated with a significant contribution of nitrogen to the environment. Finally, action plans should be developed and their implementation monitored.

Investment implications

There will be a need to reconstruct farms' manure storage facilities where sizeable concentrations of livestock exist. Water quality monitoring systems have to be constructed.

Bathing Water Directive (76/160/EEC)[23]

This directive concerns the quality of bathing water, with the exception of water intended for therapeutic purposes and water used in swimming pools. There is a proposal to revise the directive. The proposed directive makes use of only two bacteriological indicator parameters, but sets a higher health standard than Directive 1976/160. The aim of the revision is to reduce the costs of monitoring

while simultaneously improving quality assessments and management methods. Implementation of this directive should be linked to the implementation of the Urban Waste Water Treatment Directive.

Benefits will depend on the exact nature of the current levels of contaminants and how far they are from the standards set by the directive. For example, in Bulgaria these benefits will affect mainly Black Sea coastal areas which are not yet provided with urban wastewater treatment plants. The benefits will diminish the health risks for over 500,000 local people and tourists.

Implementing the directive

An assessment of the current status of bathing waters should be conducted, followed by an effort to identify the sources of pollution. A plan should then be made to upgrade the facilities.

Investment implications

The directive requires upgrades of wastewater treatment plants for both municipal and industrial sewage. Additionally, a monitoring system should be developed.

General Observations

It may be too difficult for certain countries to comply with particular directives by the date of accession. In these cases, the candidate countries can negotiate a transitional period, which requires the country to submit a directive specific implementation and financing plan. In the accession process, this kind of plan can help countries to plan the implementation of all directives, not only when a transitional period is sought. The possible contents of such as a plan are presented in Table 7. There are several examples of directive specific implementation plans, including:

- Directive Specific Implementation and Financing Plan: Solid Waste Landfill (Latvia) <www.varam.gov.lv/id/JOMA/Esaa. htm# 2_4_5>
- Implementation Plan for Council Directive 91/271/EEC Concerning Urban Waste Water Treatment, as amended by Directive 98/15/EC (Romania) <www.mmediu.ro/integrare/comp2/PID_eng/phase2/Implementation%20Plan%20waste%20water.pdf >

TABLE 7

Possible content of a directive specific implementation and financing plan[24]

CHAPTER	CONTENT
Introduction	• requirements of the directive • summary of transition time required
Steps required for for full implementation	• current status of practical compliance, and legislative and institutional gaps in implementation • steps to complete legislative transposition • steps to complete institutional arrangements to comply with directive's requirements • long list of projects required to fully implement the directive • balance between public and private investment needed
Strategy for implementation	• context for the strategy; socio-economic issues and institutional factors • proposed scenario(s) for full implementation and assumptions • roles of the various actors and responsibilities for investments • institutional development plan • approach to project prioritisation and implementation
Financing costs of implementation	• estimated costs of implementation under selected scenario • timetable for implementation • annual costs over proposed period of implementation of investment capital, operation and maintenance costs • sources of finance • analyses of affordability issues on national, municipal, and household levels
Implementation plan	• key steps and assumptions • short-term, medium-term and long-term initiatives (including short list of priority projects) • timetable for full implementation (target date and milestones) • measures for supervising and monitoring implementation

- Implementation Plan for Directive 1999/31/EC on the Landfill of Waste, October 2004 (Romania) <www.mmediu.ro/integrare/comp2/PID_eng/phase2/Implementation%20Plan%20waste%20landfill.pdf>

The Urban Waste Water Treatment Directive has proven to be a great challenge to implement, even for old member states, while every new member state has applied for a significant transitional period.

A recent study on the effectiveness of European policies for implementing the Urban Waste Water Treatment Directive Directive[25] shows that clear lines of institutional responsibilities were helpful in Denmark and the Netherlands. In Spain and France, overlapping responsibilities between authorities at local, regional and national levels, accompanied by large investment needs and bottlenecks in financing, appear to have significantly constrained full implementation of the directive. Local municipalities in Spain and France, which are responsible for providing sewage treatment, are largely deprived of their own financial sources, which leads to lengthy negotiations on financing — a deterrent to effective implementation.

An assessment also revealed that the absence of economic instruments for promoting eco-efficiency is reason for concern as to whether the member state will be able to implement cost-efficiency principles. Substantial savings in investment costs can be made if advantage is taken of water pollution control levies, and incentives for controlling the sources of pollution are in place. Low or inadequate water pollution levies, or a lack of full-cost pricing on sewerage (Spain, Estonia, Poland) may lead to excessive capacity planning and construction if the potential for reducing discharges from industrial sources is not taken into account.

Implementation of the directive is costly; it is estimated that it has absorbed more than 50 percent of all environmental investment in recent decades in the EU.

Looking at the levels of expenditures in Estonia and Poland as examples of a small and large member state implementing the directive, at present expenditures for the directive are on the level of EUR 5-10 per capita (not purchasing power parity adjusted) and will need to be increased to a level of about EUR 40-50 per capita to comply with the agreed deadlines.

The following findings have been identified:

- Clear responsibilities for implementing the directive have to be allocated so that all stakeholders involved can perform their actions.
- Following the distribution of responsibilities, adequate financial resources should be distributed to implement responsibilities.
- Economic instruments should be in place to provide industries with an incentive to promote eco-efficiency and to reduce pollution at the source in order to avoid excess investment in sewage treatment plant capacity. Low pollution levies or a lack of full cost pricing leads to overinvestment in excessive capacity if the potential for reducing discharges from industrial sources is not taken into account.
- There is a need to focus on finding the right balance between prevention and adequate sewage treatment capacity, as sewage treatment is one of the most capital-demanding environmental measures.

A holistic approach is needed that not only estimates the costs of infrastructure needed to implement the directive, but also takes a step forward and introduces measures that increase savings and effectiveness.

Endnotes

1 COM(2001) 304 final.

2 Ibid.

3 *Benefits of Compliance,* European Commission 2001.

4 For the purpose of this report, the IPPC directive is not included in the analyses. See the chapter on methodology.

5 Council Directive 96/62/EC of 27 September 1996 on Ambient Air Quality Assessment and Management.

6 For the purpose of this report, the IPPC Directive is not included in the analyses. See the chapter on methodology.

7 Assessment of the Effectiveness of European Air Quality Policies and Measures (2004).

8 Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the Limitation of Emissions of Certain Pollutants into the Air from Large Combustion Plants

9 Benefits of compliance (2001).

10 Generation Study in SEE (2005).

11 Including Bulgaria and Romania.

12 Benefits of Compliance (2001).

13 *Council Directive 1999/31/EC of 26 April 1999 on the Landfill of Waste.*

14 See list of references.

15 One landfill site can have different areas for more than one category of waste.

16 Official Title: *Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste.*

17 Council Directive 86/278/EEC on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture.

18 Official Title: *Council Directive 98/83/EC on the quality of water intended for human consumption.*

19 *Council Directive 91/271/EEC Concerning Urban Wastewater Treatment.*

20 Benefits of Compliance 2001.

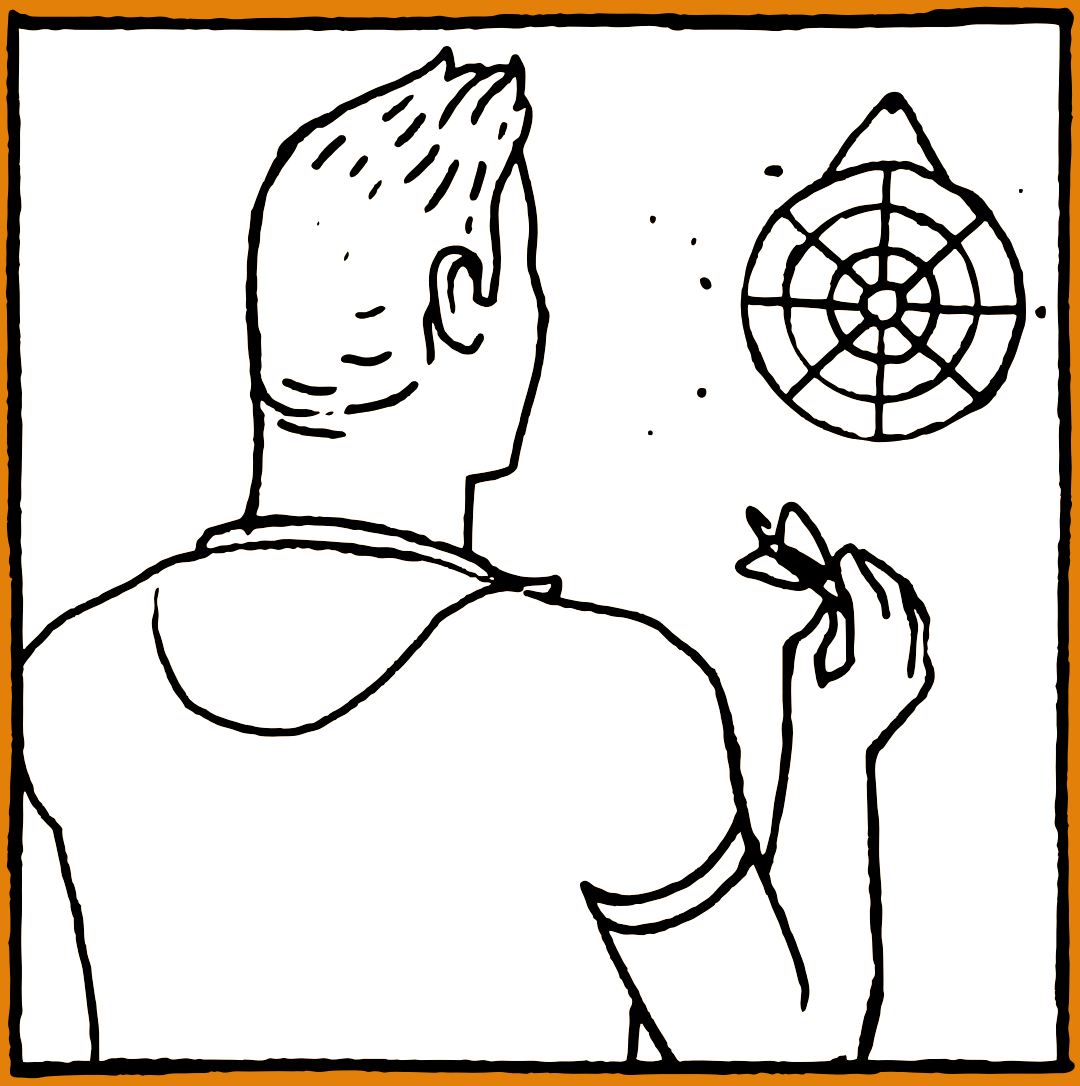
21 Directive 76/464/EEC on Water Pollution by Discharges of Certain Dangerous Substances.

22 Council directive of 12 December 1991 Concerning the Protection of Waters against Pollution Caused by Nitrates from Agricultural Sources (91/676/EEC).

23 Official Title: *Council Directive of 08 December 1975 Concerning the Quality of Bathing Water (76/160/EEC).*

24 COM(2001) 304 final.

25 EEA 2005.



Chapter 4

Targeting the Investment Challenge

Chapter 4: **Targeting the Investment Challenge**

Targeting the infrastructure investment challenge is a complicated process requiring the involvement of a variety of stakeholders. Targeting the investment challenge means establishing where and what type of infrastructure should be developed to comply with the legal requirements, that adequate financial resources have been identified and mobilised, and, finally, that the projects are being implemented successfully.

Experience from the new EU member states shows that the majority of risks associated with successful project implementation are encountered in the early stages of project development when the project proponent is developing its proposal for funding. Moreover, the current challenge for the SEE countries is to be able to prepare projects which meet legal requirements and will be able to attract external funding. This chapter therefore focuses on the early stages of project cycle management (PCM), which, if implemented properly, are the key to attracting external sources of financing and successful project implementation. It has to be taken into account that the successful completion of any infrastructure project depends on proper project implementation during construction, but these issues are not discussed here in detail.

From this perspective, the chapter first discusses the status of preparations at the national level for establishing a framework for developing infrastructure projects. It follows with the options and issues related to project identification and prioritisation. Special focus is put on infrastructure project formulation, which is one of the pre-conditions for successful development of investment projects and attracting external funding. Finally, issues related to the bankability of projects are described because the ability to access funding from international financing institutions is seen as one of the biggest opportunities for the major environmental infrastructure projects in SEE.

The responsibility for targeting the investment challenge is shared between the national and local level. There are certain pre-conditions which must be met at the national level that project proponents are able to successfully develop and implement projects. While the national level should focus on programming for compliance with legislation (which includes creating a relevant legislative framework, project identification, effective management of project pipelines, projects prioritisation, identification and mobilisation of funding sources, and monitoring of implementation results), the local project proponents should focus on designing and implementing relevant projects, which would lead to compliance with the legislation. This process includes identification of needs, concept development, project preparation, identifying and attracting sources of financing, and effective and efficient implementation of projects.

Figure 3 presents the key stakeholders in this process and key issues related to their roles.

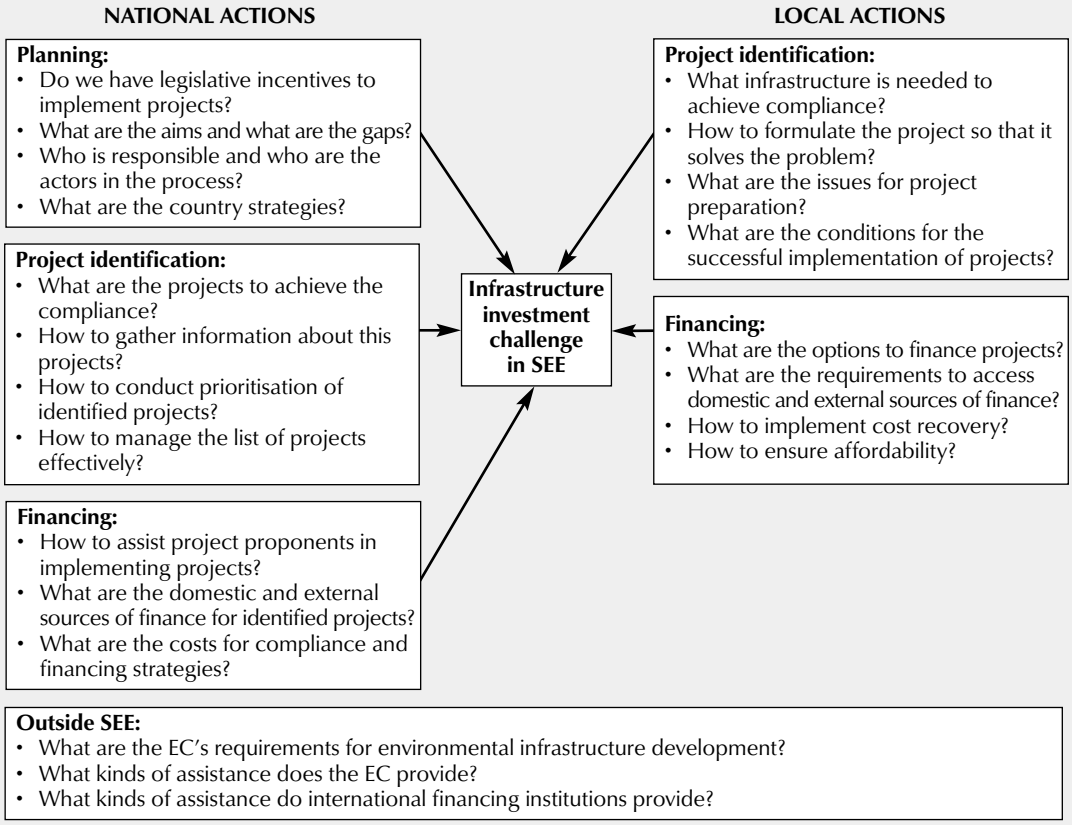
Government planning for legislative and institutional frameworks

The main role of government in relation to creating the enabling environment for financing environmental investments is to establish the policy, regulatory and institutional framework within which different resources (i.e. user charges, capital markets, local budgets, and private finance) can be mobilised in a complementary and cost-efficient way. Project proponents expect that governmental planning will result in clear policies and institutional frameworks which support their efforts and give guidelines for project development. The important elements of government planning for implementing environmental infrastructure projects are:

- legislation in place which specifies the objectives to be achieved;

FIGURE 3

Roles and issues of key stakeholders in the process of targeting the investment challenge



- developed institutional structures that will assume responsibility for planning, implementing, enforcing and monitoring the legislation in place; and
- developed strategies or programmes which will guide project proponents and identify sources of funding or co-funding.

This chapter introduces the situation in South Eastern Europe with respect to governmental investment planning for air, waste and water environmental investment projects in relation to the legislative and institutional frameworks under development. The chapter presents the state of the transposition of selected key investment heavy EU directives, and the description of existing programmes, strategies and plans to implement them. In addition, governmental institutions responsible for developing strategies and setting targets, as well as other national and local stakeholders that are involved in the implementation process, are described.

Transposing and implementing EU directives is a lengthy process. The first step is to harmonise national legislation with the EU directives. The subsequent step is the implementation of the transposed directive, which entails the achievement of full compliance with its requirements. In order to implement a directive successfully, the tasks, responsibilities and competences of the parties involved at all levels need to be clearly delegated and appropriate capacities of these institutions built.

Implementation documents include development plans, strategies and programmes describing the countries' overall objectives in the field of

environment and the required means to achieve them. These documents provide the national framework for implementing the requirements of the transposed directives. They assess the needs and analyse the gap between the real situation on ground and the stipulated conditions, describe sets of actions and investments, and delegate responsible bodies for implementation. Plans are usually long-term documents based on regional and national priorities. Plans describe the current situation, state the objectives and indicate the financial plan to achieve them. Strategies detail the different means, including the form and use of financial resources in attaining the goals.

Programmes are yearly specifications of the multi-annual development plans. They elaborate measures to be taken and indicate the responsible bodies entrusted to carry them out. The programmes also contain financial plans to fund the execution of the measures. Besides having proper implementation documents developed, it is of great importance that clear roles are defined for the ministries and local authorities in implementation. The clear allocation of responsibilities can ensure a smooth implementation process. Furthermore, it helps to avoid duplication in administration procedures and confusion over accountability.

In order to ensure the compliance with requirements, a system of permitting, monitoring and reporting has to be developed and become operational on the national level.

Air sector

Considering the harmonisation process in the air sector in SEE, it can be concluded that framework regulations on air protection are adopted or expected to be adopted soon in each of the countries, with the exception of Albania. In Bosnia and Herzegovina, Croatia and the former Yugoslav Republic of Macedonia, the Law on Air has been adopted and Serbia and Montenegro expects to adopt it in 2006. In Albania, the time schedule for the harmonisation process was drawn up by the end of 2005. With regard to the specific laws covering the Air Quality Directive and the Large Combustion Plants Directive, only Croatia has enacted by-laws on limit and critical values of pollutants in air that are fully harmonised with the air quality daughter directives and by-laws on limit values on emissions from stationary sources, full transposition of which is expected in 2006.

The current and planned implementation strategies and programmes in the air sector suggest that all countries and entities have prepared national documents which elaborate objectives and measures for environmental protection. In addition, Croatia has developed sector-specific programmes to protect air quality. In the rest of the countries concerned such sector specific documents on air protection are to be developed and drawn up in the former Yugoslav Republic of Macedonia and the Republic of Serbia as well.

The responsibility for implementing the key air sector directives is primarily concentrated in the hands of the ministry of environment or its equivalent. In most countries, the ministry of health also assumes certain tasks in target setting and compliance checking. Inspectorates and health institutes are involved in the implementation at the regional level and at the local level municipalities and public enterprises share the responsibility for air quality monitoring. Table 8 provides more details.

Waste sector

Progress in transposing selected directives in the waste sector is similar to that in the air sector. The framework laws on waste are transposed in the countries, except for in Serbia and Montenegro, where draft versions exist and are expected to be adopted in 2006. In the Republic of Montenegro, the Law on Waste Management was adopted in 2005. In Albania, the National Plan for Approximation of Legislation was approved by the Council of Ministers in May 2005. By-laws are expected to be developed in Croatia and the former Yugoslav Republic of Macedonia over the coming two years.

The overview of existing implementation documents in the waste sector indicates that, besides the general development plans and national strategies on environmental protection, specific documents have been developed on waste management in the majority of countries. In Kosovo, which is under interim UN administration, the Environmental and Sustainable Development Strategy will include the waste sector as well, and in the former Yugoslav Republic of Macedonia the preparation of sector-specific implementation documents are stipulated by the Law on Waste Management.

The responsibility for developing strategies and setting targets in the waste sector is shared among several ministries. The ministry of environment (or its equivalent) plays an important role in implementation. With regards to the Sewage Sludge Directive, the ministry in charge of water management is usually the main authority. National and regional institutions are also involved in the imple-

mentation, such as the Centre for Eco-toxicological Research in the Republic of Montenegro. In Croatia the Environmental Protection and Energy Efficiency Fund provides financial support for waste management projects. Municipalities are the main local authorities involved in directive implementation via the provision of communal services. Table 9 presents more details.

Water sector

The process of transposition in the water sector is in very different phases in the countries concerned. In the former Yugoslav Republic of Macedonia, the Law on Water will not be in place for some time, as the division of responsibilities between the Ministry of Environment and Physical Planning and the Ministry of Agriculture, Forestry and Water Management in relation to water protection has to be clarified.

In the Republic of Serbia the law is being drafted. In Croatia, the framework laws were enacted back in 1995, and recent amendments to the Water Act take into account some directions given in the Water Framework Directive and other EU directives. Croatia plans to complete the transposition by issuing specific laws by 2006. The Republic of Montenegro has prepared a new draft Law on Water, which transposes the EU Water Framework Directive. The Law on Water is expected to be adopted in 2006.

In Republika Sprska, several by-laws were prepared between 2001 and 2003 that cover the selected investment-heavy directives; only the enactment of the by-law related to the Bathing Water Directive is expected by 2006. In Albania and Kosovo (territory under interim UN administration) the transposition has yet to start. Specific implementation documents for the water sector have been developed in Albania, Croatia, and the Republic of Serbia. In the former Yugoslav Republic of Macedonia the draft Law on Water specifies the development of strategies related to water management. In the Republic of Montenegro the programmes and master plans for wastewater also include water management issues, as do the national plans and strategies in Bosnia and Herzegovina. In Kosovo, the water sector will be dealt in the Kosovo Environmental Action Plan, which is projected to be adopted by 2006. Responsibilities for the implementation of the five selected investment-heavy directives in the water sector are distributed among several ministries. The key entities involved are the ministries in charge of environment, water management, agriculture and health. Research institutes, water directorates and regional water supply companies play an important role in the implementation at the regional level. At the local level, municipalities together with their public utility companies are in charge of the provision of communal water services. The involvement of the private sector is at an early stage and is mainly in the form of concessions. Table 10 presents more details.

General Observations

- The status of transposition of the EU investment heavy directives suggests that the countries in the SEE region are at an advanced stage of transposing framework laws or expect to finalise the transposition in the near future. Full transposition of directives is still to be completed through issuing by-laws and regulations.
- General implementation documents exist in almost all of the countries concerned in the form of national development and environmental plans, programmes and strategies. Sector-specific documents are often under development. As some of the implementation documents were prepared earlier, without taking EU requirements into consideration, there is a need to revise them according to the provisions of community law.
- Following the development and adoption of implementation documents, it is necessary to create an effective monitoring system that will not only report on the status of the implementation of directives, but will also identify the weaknesses of these documents which can be immediately addressed.
- In most of the countries, responsibilities for planning and implementing directives have already been assigned. The responsibilities for implementing are often shared by several ministries and institutions. The experience from new EU member states confirms that this situation is typical, as environment is a complex sector. Therefore, special attention should be paid to effective inter-ministerial coordination and collaboration with regional and local authorities.
- Following the assignment of responsibilities, it is necessary to assess the capacities needed in the nominated ministries to fulfil their obligations. Levels of capacity are needed not only in terms of number of staff, but also in terms of their qualifications, expertise and experience.

- There is a need to assist local and regional authorities — who, in the majority of cases, are responsible for implementation — in the drafting of integrated local environmental strategies, which will set objectives to target pollution on a local scale.
- One of the key issues for implementing key investment heavy directives is the development and management of investment project pipelines. This task requires substantial administrative capacities and coordination among public entities. Effective pipeline management provides a systematic mechanism for identifying and evaluating all relevant projects needed for compliance with a given directive.

TABLE 8

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Air sector

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
ALBANIA	The main principles of the **LCP** directive are partially transposed (Law on Protection of Air from pollution). Air quality norms and air emission norms are included. The main principles of **AQD** are partially transposed (Law on environmental protection and on the protection of air from pollution).	Inter-ministerial working group has been established for adopting a set of measures to improve air quality in urban and industrial areas.[1] The group has prepared a plan for reducing air pollution. Measures of the plan are introduced in the Action Plan for the Implementation of the European Partnership with Albania covering the period 2004-2007. **Future actions and comments:** The country has started the official process of approximation of environmental legislation. The amendments of the Law on Air Protection from Pollution is planned to be done by December 2007.
BOSNIA AND HERZEGOVINA	Requirements of the **LCP** and **AQ** directives are transposed in the Law on Air protection of Republika Srpska and Law on Air Protection of the Fedaration of Bosnia and Herzegovina.	**NEAP** was adopted in 2003 and includes measures for the air sector. Environmental Performance Review by UNECE in 2004. Poverty Reduction Strategy Paper.(includes also environment). **Future actions and comments**: By-laws are under preparation.
CROATIA	The **LCP** directive is partially transposed (Regulation on Limit Values of Pollutant Emissions into the air from stationary sources). **AQD** is transposed to the Law on Air Protection from 2004.	**NEAP** was adopted in 2002. It sets objectives for air quality management, climate change, acidification, euthrophication and ground ozone. The National Programmes for the Integration of the Republic of Croatia into the European Union (2004, 2005, 2006) define, among others, legislation in air sector that is planned to be adopted on a yearly basis.

LCPD - Large Combustion Plant Directive; **AQD** - Air Quality Directive; **BiH** - Bosnia and Herzegovina; **RS** - Republika Srpska; **FBiH** - Federation of Bosnia and Herzegovina

RESPONSIBLE INSTITUTION	RESPONSIBILITY
LCP: Ministry of Environment, Forestry and Administration of Waters and the Ministry of Health	Drafting the guidelines for special measures for air protection
Local governments	Involved in implementation
AQD: Ministry of Environment, Forestry and Administration of Waters	Main authority for air protection, drafting guidelines and norms and programmes for air protection
Ministry of Public Works, Transport and Telecommunications	Sets the rules for the control of emissions from mobile sources
Ministry of Health	Suggests concrete measures for air quality protection
Local governments	Involved in suggesting measures for air quality protection
Environmental Inspectorate	Inspection, control and enforcement of air legislation
LCP: **BiH-RS**: Ministry of Physical Planning, Civil Engineering and Ecology	Strategy and target setting
Institute for Health Protection, the Institute of Occupational Protection and Ecology and the Hydrometeorology Service	Regular monitoring, conducting environmental surveys and reporting
BiH-FBiH: Federal Ministry of Physical Planning, and Environment	Strategy and target setting
Federal Ministry for Health, the Public Health Institute and the Hydrometeorological Institute	Monitoring, conducting environmental surveys and reporting
Local stakeholders	Self-monitoring requirement
AQD: **BiH-RS**: Ministry of Physical Planning, Civil Engineering and Ecology	Strategy and target setting
BiH-FBiH: Federal Ministry of Physical Planning, and Environment	Strategy and target setting
Federal Ministry for Health, the Public Health Institute and the Hydro-meteorological Institute and the Cantons	Monitoring, conducting environmental surveys and reporting
LCPD: Ministry of Environmental Protection, Physical Planning and Construction	Planning procedure in the air sector (developing strategy and action plan, legislation), enforcement and control
Croatian Environment Agency	Collecting emission pollutants data from stationary sources and keeping cadastre on air environment pollution
Local authorities	Adoption of programmes for protection and improvement of air quality on local level
AQD: Ministry of Environmental Protection, Physical Planning and Construction	Planning, implementation, enforcement and control

TABLE 8

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Air sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
CROATIA (continued)		First National Communication to the UN Framework Convention on Climate Change was submitted in 2002. The National Communication on Climate Change for the period 1996-2003 is under preparation and will be submitted to the UNFCCC Secretariat in 2006. The Programme of Air Quality Measurement within the National Network for Continuous Air Quality Monitoring was enacted in 2002. The on-going CARDS 2002 project Strategy for EU Environmental Law Approximation will provide, among others, an approximation strategy and implementation plans for selected directives. **Future actions and comments:** Full transposition of the LCP directive is expected in the 2006 (Regulation on limit values of pollutant emissions into the air from combustion plants). The process of harmonising the air protection legislation will be completed in 2007. The Air Quality Protection and an Improvement Plan to be adopted in 2006. Local self-government units are obliged to adopt Programmes for Air Pollution Reduction Measures with the aim of gradually achieving the recommended values in the second class air quality. The Restoration Programme in the third category of the air quality area, in which a polluter is obliged to develop and implement the programme, Restoration Programme for the Zones with Excessive Air Pollution Caused by Emissions from Disperse Sources (such as traffic, and households).
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	Transposition of the **LCP** directive is on-going as part of CARDS 2004 project. Legal basis are in the Act on Ambient Air Quality. The **AQ** directive is fully transposed by this act.	The National Plan for Ambient Air Quality Protection will be developed. The Programme for Air Pollution Reduction and Ambient Air Quality Improvement will be developed.

LCPD - Large Combustion Plant Directive; **AQD** - Air Quality Directive

RESPONSIBLE INSTITUTION	RESPONSIBILITY
Croatian Environment Agency	Collecting emission pollutants data from stationary sources and keeping cadastre on air environment pollution.
State Hydrometeorology Institute	Measurement of background pollution, regional and long-range trans-boundary pollution
Local authorities	Measurement of air quality on the local level through the Local Air Quality Monitoring Network
LCPD: Ministry of Environment and Physical Planning	Implementation planning, assessment of air quality, implement the National Plan for the ambient air quality protection
Ministry of Health	Health risk assessment related to ambient air quality
Local self-government	Implement the Programme for air pollution reduction and ambient air quality improvement
AQD: Minister of Environment and Physical Planning in conjunction with the Minister of Health and the Minister of Economy	Prepares the National Plan for the ambient air quality protection
Self-governments	Develop programmes for reduction of pollution and improvement of air quality, can establish local monitoring networks

TABLE 8

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Air sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
SERBIA AND MONTENEGRO: Serbia	Law on Air Protection will transpose **LCP** and **AQ** directives. It is in final stage of drafting and will be adopted in 2006.	No specific documents developed for the air sector. National Programme for Environmental Protection exists with actions for the air sector specified. **Future actions and comments:** Action Plan for Air and Atmosphere Protection will be adopted within two years of the entry into force of the new Law on Environmental protection. Law on Environmental Protection was adopted in December 2004.
SERBIA AND MONTENEGRO: Montenegro	Law on Ambient Air Quality – to be adopted during 2006. No activities on transposing **LCP** directive happen so far.	No specific documents exist so far. The long-term strategy for the country, the Developmental Directions of Montenegro as an Ecological State, provides selected objectives for the air sector. **Future actions and comments:** Transposition of all relevant air sector directives are to be completed by the end of 2006. Following adopting of the law on Ambient Air Quality, drafting of five by-laws will start. Provisions of LCP directive should be implemented by 2017 according to the Energy Treaty.[2]
SERBIA AND MONTENEGRO: Kosovo (territory under UN interim administration)	Law on Air Protection fully transposed the **AQ** directive and partially **LCP** directive. The Law is endorsed by the Special Representative of the Secretary General (SRSG) of United Nations in Kosovo and is under implementation.	No specific documents exist so far. **Future actions and comments:** The Kosovo Environmental Action Plan is expected to be ready in 2006.

1 The group is composed of representatives of the Ministry of Environment, Ministry of Industry and Energy, Ministry of Transport and Telecommunications, Ministry of Territory Adjustment and Tourism, Ministry of Local Government and Decentralization, and Ministry of Finance.

2 Annex II of the Energy Community Treaty for South Eastern Europe.

LCPD - Large Combustion Plant Directive; **AQD** - Air Quality Directive

RESPONSIBLE INSTITUTION	RESPONSIBILITY
LCPD: Ministry of Science and Environmental Protection, Ministry of Energy and Mining	Setting targets and developing strategies
Electro Power System	Takes part in the implementation
Municipalities	Adopt environmental protection programmes, local action and rehabilitation plans and set special fee for environmental protection and development
AQD: Ministry of Science and Environmental Protection	Setting targets and developing strategies
Dr Milan Jovanovic-Batut public health institute and its network of 22 municipal public health institutes	Takes part in the implementation
Municipalities	Preparing and implementing local programmes and action plans for air quality protection
LCPD: Ministry of Environment and Physical Planning	Set targets and develop strategies for implementation
Ministry of Economy	Energy policy, power supply and mining
Ministry of Maritime and Transport	Involved in implementation
AQD: Ministry of Environment and Physical Planning	Assessment of ambient air quality, implementation planning, set limit values for ambient air quality, supervision of implementation
Ministry of Health	Involved in setting limit values
Hydro-meteorological Institute, the Republic Institute for Health Protection and the Centre for Ecotoxicological Research	Monitor air quality
Local authorities	Prepare and implement plans and programmes with short-term and long-term measures
LCPD: Government	Planning and implementation
AQD: Department of Environment within the Ministry of Environment and Spatial Planning	Implementation planning
Ministry of Health	Health risk assessment
Ministry of Energy	Contribution to air quality protection
Municipalities	Draft local strategy for air protection

TABLE 9

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Waste sector

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
ALBANIA	The main principles of the **LD, HWD, SSD** and **ID** are introduced by the Law on Environmental Protection and the Law on the Environmental Management of Solid Waste.	The National Waste Management Plan has been in place since 1996. **Future actions and comments:** The National Plan for Approximation of Legislation was approved in May 2005. The LD is to be transposed by 2008, the HWD by 2006 and 2009, the ID by 2008. No deadline has been identified for the SSD. The draft of the HW Law is supported by the CARDS 2002 project. The updating of the National Waste Management Plan is planned.
BOSNIA AND HERZEGOVINA	The Law on Waste management in Republika Srpska partially transposes the **LD**, **HWD** and **ID**. The Law on Waste Management of the Federation of Bosnia and Herzegovina fully transposed the **LD** and **HWD**. The ID is transposed by the Law on Waste Management, the Law on Air protection and the by-law on Incineration in the Federation of Bosnia and Herzegovina.	The Solid Waste Management Strategy for Bosnia and Herzegovina was adopted in 2002. The NEAP was adopted in 2003. The Environmental Performance Review of UNECE was adopted in 2004. **Future actions and comments:** The SSD has not yet been fully transposed in BiH. By-laws are under preparation.

LD - Landfill Directive; **ID** - Incineration Directive; **HWD** - Hazardous Waste Directive; **SSD** - Sewage Sludge Directive

RESPONSIBLE INSTITUTION	RESPONSIBILITY	RESPONSIBLE INSTITUTION	RESPONSIBILITY
LD, ID: Ministry of Environment, Forestry and Administration of Waters[1] (MoEFAW)	Setting targets, drafting strategy	**HWD**: Ministry of Environment, Forestry and Administration of Waters	Drafting the law and strategy
Ministry of Health (MoH)	Together with MoEFAW, prepareing frame regulations for each of the waste treatment methods, and criteria for the installation and functioning of hospital waste incinerators	Ministry of Economy, Trade and Energy	Implementation planning with regards to chemicals, industrial and hazardous waste
Ministry of Public Works, Transport and Telecommunications	Together with MoEFAW and MoH, preparing guidelines for waste management in transboundary areas	Ministry of Health	Implementation planning with regards to hospital waste
Minister of Environment	Specific functions, such as waste transit permitting	Ministry of Agriculture, Food and Consumer Protection	Implementation planning regarding waste pesticides
Local governments	Following the frame regulation for each treatment method, collecting solid waste and managing urban waste landfills	Ministry of Defence	Implementation planning with regards to military waste
		Municipalities	Deposit the hazardous waste and substances
		SSD: Ministry of Environment, Forestry and Administration of Waters, Ministry of Agriculture, Food and Consumers Protection, Ministry of Health, Ministry of Public Works, Transport and Telecommunication, Ministry of Interior	Implementation planning, setting targets and strategies
BiH-RS: LD, ID, HWD: Ministry of Physical Planning, Civil Engineering and Ecology	Implementation planning, setting targets and strategies, no incineration facilities exist	**SSD**: No responsibilities defined	
Ministry of Health and Social Welfare and the Ministry of Economy, Energy and Development	Involved in implementation		

TABLE 9

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Waste sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
BOSNIA AND HERZEGOVINA (continued)		
CROATIA	The Waste Act from 2004 adopted the requirements of the 75/442/EEC directive on waste. A government regulation on types, categories and classification of waste and a hazardous waste catalogue were adopted in 2005.	The National Environmental Strategy and NEAP from 2002 introduces the strategic framework for waste management systems. The National Waste Management Strategy (NWMS) was adopted in October 2005 and waste management plans (national, regional, local) will be developed on the basis of it. **Future actions and comments:** The **LD, HWD, ID** and **SSD** will be fully transposed in the form of by-laws in 2006.

LD - Landfill Directive; **ID** - Incineration Directive; **HWD** - Hazardous Waste Directive; **SSD** - Sewage Sludge Directive

RESPONSIBLE INSTITUTION	**RESPONSIBILITY**	**RESPONSIBLE INSTITUTION**	**RESPONSIBILITY**
Municipalities	Solid waste management, local stakeholders are not involved in the hazardous waste management		
BiH-FBiH: LD, ID, SSD: Cantons	Setting targets and developing strategies, no incineration facilities exist	**HWD**: Federal Ministry of Physical Planning, and Environment	Involved in setting targets and developing strategies
LD, ID, HWD: Ministry of Environmental Protection, Physical Planning and Construction	Transposition, implementation and enforcement	**SSD**: Ministry of Environmental Protection, Physical Planning and Construction	Responsibilities not determined yet
		Ministry of Agriculture, Forestry and Water Management	Responsibilities not determined yet
Environmental Protection and Energy Efficiency Fund	Co-financing landfill remediation, support the establishment of county/regional waste management centres,[2] waste recycling projects, and others	Croatian Waters public enterprise, local public water and waste management facilities	Involved in implementation
Croatian Environment Agency	Collecting, preparing and evaluating relevant data, developing information and technological system and individual databases	Local authorities, wastewater management companies	Organising sewage sludge collection
Companies managing existing landfill sites	Involved in implementation planning		
Regional and local authorities, waste management companies	Defining locations for regional centres, enforcing standards and targets at the local level, organising waste collection system, enforcing waste data, collection system on local level		

TABLE 9

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Waste sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	The Law on Waste Management from 2004 transposes the **HWD** and specifies the by-laws to be developed. The **SSD** is fully transposed by the draft Law on Water (not yet adopted).	The Strategy on Waste Management will be enacted two years from the day of entry into force of the Law on Waste Management. The National Waste Management Plan is under development. It is expected to be finished in 2006. **Future actions and comments:** By-laws will transpose the LD, SSD and ID. The ID is to be transposed by 2008 (not a priority).
SERBIA AND MONTENEGRO: Serbia	The Law on Waste Management will transpose the **LD, ID, HWD** and **SSD** (to be adopted in 2006). Some elements of these directives are present in the existing Waste Management Law and in the regulations of the Criteria for Determining Location and Deposition, Processing Facilities, Temporary Storage or Final Disposal of Waste Materials Deposit Sites.	The National Waste Management Strategy was adopted in 2003. The NEAP also includes waste issues. A Feasibility Study on the Management of Hazardous Waste has been finalised. **Future actions and comments:** Specific regulations will be developed as by-laws. The National Programme for Environmental Protection is a strategy prepared in line with the Law on Environmental Protection to be developed in two years. The government will adopt the Action Plan for Waste Management within two years after the new Law on Environmental Protection has entered into force.

LD - Landfill Directive; **ID** - Incineration Directive; **HWD** - Hazardous Waste Directive; **SSD** - Sewage Sludge Directive

RESPONSIBLE INSTITUTION	**RESPONSIBILITY**	**RESPONSIBLE INSTITUTION**	**RESPONSIBILITY**
LD: Ministry of Environment and Physical Planning	Prescribe the conditions that need to be fulfilled by a landfill	**HWD**: Government	Hazardous waste landfills can only be established by the government
Operators of the landfill	Registering and identifying waste received	Hazardous waste generators	Keep records on hazardous waste, classify waste according to the List of Wastes
ID: Ministry of Environment and Physical Planning	Set the minimal technical conditions, issuing licenses to incinerator operators	Operators of hazardous waste disposal	Registering and identifying the hazardous waste received for disposal
		SSD: Ministry of Environment and Physical Planning (MoE)	Responsible for disposal, treatment and use of sludge
		Ministry of Agriculture	Together with the MoE will issue by-laws on the details of handling
		Municipalities	Collect, remove and treat the wastewater generated, including the disposal of the sludge
LD, ID, HWD: Ministry of Science and Environmental Protection	Target and strategy development	**SSD**: Ministry of Agriculture, Forestry and Water Management, Ministry of Science and Environmental Protection	Implementation planning
Recycling Agency[3]	Involved in implementation planning		
Municipalities	Development and implementation of waste management policy at the local level as well as collection, transportation and disposal of municipal waste.		

TABLE 9

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Waste sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
SERBIA AND MONTENEGRO: Montenegro	The Law on Waste Management transposes the **LD, ID, HWD** and **SSD**.	No specific documents for waste management exist. The government adopted the National Policy on Waste Management in 2004. The Master Plan for Waste Management for the republic was adopted in 2005.[4] **Future actions and comments:** **HWD** will not be fully transposed until 2009.
SERBIA AND MONTENEGRO: Kosovo (territory under UN interim administration)	The Regulation on Landfills to be developed in 2006 will transpose the **LD**. The Administrative Instruction on Waste Incineration will transpose the **ID** (to be developed in 2006). The Recommendation of Technical Framework for Regulation of Hazardous Waste from 2003 transposed the **HWD**. The Law on Waste Management is waiting for approval from SRSG and will transpose the **SSD**.	The Environmental and Sustainable Development Strategy includes a strategic framework for waste management. It has been approved by the government. **Future actions and comments:** The Regulation on Hazardous Waste is in its initial phase of drafting.

1 This ministry also sets the rules for the application, screening and approval of permits for waste export, as well as the accompanying documentation.

2 The solution to problems in the waste management sector and compliance with EU standards within Croatia require considerable investment. For this reason, Croatia has been undertaking activities to apply for pre-accession funding under ISPA 2005/2006, following the recently developed National ISPA Strategy for the environmental sector. The indicative list of waste management projects in the strategy includes projects that refer to the establishment of county/regional waste management centres and remediation of landfills. The Croatian Bank for Development and international financial institutions such as the EBRD and EIB have expressed their interest in co-financing the waste management projects.

3 The agency deals with technical matters, prepares studies and analysis, communication and education of citizens. It can provide services to enterprises and citizens for a certain fee.

4 This document is in accordance with EU requirements and standards, and stipulates the drafting of waste management plans and establishment of eight regional landfills.

LD - Landfill Directive; **ID** - Incineration Directive; **HWD** - Hazardous Waste Directive; **SSD** - Sewage Sludge Directive

RESPONSIBLE INSTITUTION	**RESPONSIBILITY**	**RESPONSIBLE INSTITUTION**	**RESPONSIBILITY**
LD, ID, HWD, SSD: Ministry of Environmental Protection and Physical Planning	Planning procedure, permitting, monitoring, collecting information, inspections.		
Centre for Ecotoxicological Research	Analyses toxic substances in all environmental media and provides relevant studies on their impact, including human health		
Municipalities via local public utility companies	Municipal waste management		
Industry	Reducing waste generation and disposing of waste in an environmentally sound manner		
LD, ID, HWD, SSD: Ministry of Environment and Spatial Planning	Implementation planning and monitoring		
Kosovo Trust (Privatisation) Agency	Managing public utility companies		

TABLE 10

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Water sector

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
ALBANIA	The Law on the Environmental Treatment of Polluted Waters from 2003, the Law on the Protection of International Lakes from 2002 and the Law on the Protection of Marine Environment from Pollution and Damage from 2003 include only selected aspects of the EU directives.	The National Water Strategy has been in place since 1997. The National Environmental Health Plan was adopted in 1999. The National Water Supply and Sewage Strategy and the Rural Water Supply and Sewage Strategy were adopted in 2004. The Action Plan[1] is based on the above-mentioned strategies. **Future actions and comments:** The approximation of EU legislation has started. The UWWTD is planned to be transposed in 2006, DSWD in 2013 and NASD in 2007 and 2013.

DWD - Drinking Water Directive; **UWWTD** - Urban Waste Water Treatment Directive;
DSWD - Dangerous Substances in Water Directive; **ND** - Nitrates Directive; **BWD** - Bathing Water Directive

RESPONSIBLE INSTITUTION	RESPONSIBILITY	RESPONSIBLE INSTITUTION	RESPONSIBILITY
DWD: Ministry of Health	Setting the drinking water minimum standards and quality values	**DSW**: Ministry of Environment, Forestry and Administration of Waters	Drafting acts
The Ministry of Public Works, Transport and Telecommunication	Strategies, guidelines, water supply and sewerage collection, metering installation, and others	The Ministry of Agriculture, Food and Consumer Protection	Discharges from irrigation waters carrying pesticides
Water Regulatory Body	Preparing the methodologies for water tariffs, setting water and sewage tariffs	Ministry of Economy, Trade and Energy	Setting standards for bathing waters
National Water Council	Permitting for water abstraction	Ministry of Public Works, Transport and Telecommunication	Sea transport activities
Regional Health Directorates	Monitoring drinking water quality	Waste treatment operators	Comply with environmental permit requirements and keep records in the related registers of pollution
State Sanitary Inspectorate and laboratories	Enforcing standards	Legal and natural persons discharging pollution	Prepare and implement plans to reduce discharges
Municipalities and enterprises	Involved in water management	Environment Inspectorate	Enforcing regulations
UWWT: Ministry of Environment, Forestry and Administration of Waters	Setting targets and developing strategies	**ND**: Ministry of Public Works, Transport and Telecommunication	Implementation planning by proposing sensitive areas
Ministry of Public Works, Transport and Telecommunication	Preparing plans, ensuring financing, supervising sewage infrastructure building and management	Ministry of Environment, Forestry and Administration of Waters	Proposing sensitive areas
Water Regulatory Body	Preparing the methodologies for water tariffs, setting water, sewage tariffs	Municipalities	Management of water treatment plants
Municipalities and their water enterprises	Collecting sewage water	**BW**: Ministry of Environment, Forestry and Administration of Waters	Monitoring marine water quality
Waste treatment operators	Complying with environmental permit requirements and keeping records in the relevant pollution registers	Ministry of Health	Involved in implementation planning
		Institute of Public Health	Monitors bathing water
		Environmental Inspectorate	Controls marine environment
		Municipalities	Collection and treatment of sewage

TABLE 10

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Water sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
BOSNIA AND HERZEGOVINA	The Regulation on Sanitary Suitability of the Drinking Water from 2003 transposed the DWD in Republika Srpska (RS). The Law on the Classification of Water and Categorisation of Watercourse from 2001 transposed the **UWWTD** in RS. Three existing regulations[2] have transposed the DSW directive in RS. The Law on Water Protection of the Federation of Bosnia and Herzegovina (FBiH) transposed the **UWWTD, DSWD**, **BWD, DWD** and **ND**.	The NEAP was adopted in 2003. The Environmental Performance Review of UNECE was adopted in 2004. The Poverty Reduction Strategy Paper also addresses water issues. **Future actions and comments:** The BWD has not been transposed in RS (expected in 2006). The new Water Law is under preparation in BiH.

DWD - Drinking Water Directive; **UWWTD** - Urban Waste Water Treatment Directive;
DSWD - Dangerous Substances in Water Directive; **ND** - Nitrates Directive; **BWD** - Bathing Water Directive

RESPONSIBLE INSTITUTION	RESPONSIBILITY	RESPONSIBLE INSTITUTION	RESPONSIBILITY
BiH-RS: **DWD**: Ministry of Health and Social Welfare (MoHSW)	Setting targets and strategies	**ND**: Water Management Directorate	Setting targets and developing strategies
Water Management Directorate (WMD), Institute for Health Protection	Involved in implementation	HMS	Involved in implementation
Municipalities	Spatial plans and protection of the water sources, management and surveillance	Municipalities	Spatial plans and protection of water sources, management and surveillance
UWWTD: Municipalities	Setting targets and developing strategies	**BW**: MoAFW, MoPPCEE, MoHSW	Setting targets and develop ing strategies
WMD	Responsible for capacity of planning	WMD and the HMS	Involved in implementation
DSW: Ministry of Agriculture, Forestry and Water Management, (MoAFWM), Ministry of Physical Planning, Civil Engineering and Ecology (MoPPCEE), MoHSW	Setting targets and developing strategies	Municipalities	Spatial plans and protection of water sources, management and surveillance
WMD and the Hydro-Meteorological Service (HMS)	Involved in implementation		
Municipalities	Spatial plans and protection of water sources, management and surveillance		
BiH-FBiH: **DWD**: Federal Ministry of Agriculture, Water Management and Forestry (MoAWMF)	Developing strategies and targets for implementation	**DSW**, **ND**, **BW**: Federal Ministry of Agriculture, Water Management and Forestry (MoAWMF)	Developing strategies and targets for implementation
Water and sewage works as public companies, water enterprises, municipalities and cantons	Involved in implementation	Water and sewage works as public companies, water enterprises, municipalities and cantons	Involved in implementation
UWWTD: Federal Ministry of Agriculture, Water Management and Forestry (MoAWMF)	Developing strategies and targets for implementation		
Cantons, municipalities	Strategy, target setting and the implementation		

TABLE 10

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Water sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
CROATIA	The Water Act and Water Management Financing Act, amended in 2005, provides the legal framework for water management and adoption of specific by-laws. Amendments to the Water Act include some directions from EU directives, e.g. the Water Framework Directive. Some regulations for drinking water, according to the DWD, are in the Water Act, in the Sanitary Water Source Protection Zones from 2002, and in the Food Act. Regulations on the Sanitary Quality of Drinking Water are fully in compliance with DWD. Basic elements of the UWWTD are in the Water Act (small modifications are needed for full transposition). Regulation on Limit Values of Indices, Hazardous and other substances in water sets the limits (small modifications are needed for full transposition). Existing legislation partially transposed the DSWD, but small modifications are needed for full transposition. The Regulation on Bathing Water Quality Standards defines the criteria for sampling, testing methods and assessment of seawater quality at beaches based on the **BD**, and the Contingency Plan for Accidental Marine Pollution in the Republic of Croatia (Official Gazette of the Republic of Croatia No. 8/97) Sub-Regional Contingency Plan for Prevention of, Preparedness for and Response to Major Marine Pollution Incidents in the Adriatic Sea are also relevant.	The State Water Protection Plan provides a management framework for the treatment of sewage water. The NEAP provides measures for the fulfilment of objectives for water. Other existing documents are: the Water Management Master Plan and The National Action Plan for the Protection of the Mediterranean Sea against Pollution from Land-based Sources. **Future actions and comments:** The DWD is to be transposed by the end of 2006. The ND has not yet been transposed into the national legislation; basic elements are in place in the Water Act. The BWD is to be transposed by the end of 2006. Elements of the directive are set by the Regulation on Beach Water Quality Standards. The New Regulation on Beach Water Quality Standards will be drawn in accordance with the future EU Directive on Bathing Water Quality based on Commission proposal COM(2002)581. A new contingency plan for accidental marine pollution in the Republic of Croatia will be drawn up in line with the Sub-Regional Contingency Plan for Prevention of, Preparedness for and Response to Major Marine Pollution Incidents in the Adriatic Sea.
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	The Law on Water will fully transpose the **DWD**, **UWWTD**, **DSWD**, **ND** and **BWD**. The Book of Rules was adopted and provides for the quality of drinking water. Divisions of responsibilities between the relevant ministries have to be clarified.	A national strategy on water should be prepared four years after the Law on Waters enters into force. Water master plans to be adopted four years and River Basin Management Plans to be adopted 10 years after the Law on Water enters into force.

DWD - Drinking Water Directive; **UWWTD** - Urban Waste Water Treatment Directive;
DSWD - Dangerous Substances in Water Directive; **ND** - Nitrates Directive; **BWD** - Bathing Water Directive

RESPONSIBLE INSTITUTION	RESPONSIBILITY	RESPONSIBLE INSTITUTION	RESPONSIBILITY
DWD, **UWWTD**, **DSW**, **ND**: Ministry of Agriculture, Forestry, and Water Management (MoAFWM)[3]	Planning procedure in water related issues	**BW**: Ministry of Environmental Protection, Physical Planning and Construction	Developing targets and strategies
		Ministry of Agriculture, Forestry and Water Management (MoAFWM) and water management agency (Croatian Waters)	Identifying and implementing measures for assuring bathing water quality standards
Ministry of Health	Sanitary quality of drinking water	Public health institutes	Performing sampling and monitoring
Croatian Waters	Monitoring the use of water, designation of vulnerable water source zones together with the Ministry of Environmental Protection, Physical Planning and Construction	Municipalities	Identifying bathing zones
Institute for Public Health	Controls the sanitary quality of drinking water		
Local government	Taking part in drinking water management, communal companies owned by municipalities develop water supply infrastructure and sanitary water source protection zones and maintain them, developing and maintaining the sewerage infrastructure and the wastewater treatment plants, establishing and implementing an action plan for reducing each hazardous substance		
DWD: Ministry of Health (MoH)	Setting drinking water minimum standards and quality values	**DSW**: MoEPP and MoAFWM	Emission standards, requirements for wastewater discharge, reference quality objectives, standards

TABLE 10

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Water sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
FORMER YUGOSLAV REPUBLIC OF MACEDONIA (continued)		**Future actions and comments:** The Law on Water Supply and Waste Water Treatment is waiting for adoption. By-laws related to the implementation of the Law on Water shall be enacted within one year from the date of this law entering into force.
SERBIA AND MONTENEGRO: Serbia	The Law on Water (to be adopted by end of 2006) will be the basic law transposing all the directives.	A national water Master Plan was adopted in 2002. The National Programme for Environmental Protection is planned to be adopted one year after the Law on Environmental Protection enters into force.

DWD - Drinking Water Directive; **UWWTD** - Urban Waste Water Treatment Directive;
DSWD - Dangerous Substances in Water Directive; **ND** - Nitrates Directive; **BWD** - Bathing Water Directive

RESPONSIBLE INSTITUTION	RESPONSIBILITY	RESPONSIBLE INSTITUTION	RESPONSIBILITY
Republic Institute for Health Protection and the institutes for health protection	Drinking water monitoring	Permit holder private entities	Obligation for self-monitoring
MAFWM	Allocation of water resources	ND: MoEPP, MoAFWM and MoH	Proposes nitrate-vulnerable zones to the government
Administration for Hydro-meteorological activities (within the MAFWM)	Permitting water use and water monitoring	MoAFWM Ministry, MoEPP	Establish code of good agricultural practices and action plan.
MoEPP	Water protection and, in the future, water management	Local self-government units	Proposing nitrate-vulnerable zones
Ministry of Transport and Communication (MoTC)	Communal infrastructure	Permit holding private entities	Obligation for self-monitoring
Local self-government units	Collecting, treating wastewater, extending the sewage system, inspecting and monitoring, water rights procedure and concessions, monitoring inspections	BW: MoEPP, MoH, institutes for health protection	Setting targets, developing strategy
UWWTD: Ministry of Environment and Physical Planning (MoEPP)	Water protection, pollution control, regulating the design of sewage and treatment plants, effluent discharge values	Local self-government units	Monitoring, management of bathing water; marking bathing water zones
Ministry of Agriculture Forestry and Water Management (MoAFWM)	Allocation of water resources		
MoH	Water quality		
Administration for Hydro-meteorological Activities (within the MAFWM)	Permitting water use and water monitoring		
Ministry of Transport and Communication (MoTC)	Communal infrastructure		
Local self-government units	Collecting, treating wastewater, extending sewage system, inspecting and monitoring, water rights procedure and concessions, monitoring inspections		
DWD: Ministry of Health (MoH)	Setting targets and developing strategies	**DSW, ND**: MoAFWM, Ministry of Science and Environmental Protection (MoSEP)	Setting targets, developing strategy for implementation

TABLE 10

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Water sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
SERBIA AND MONTENEGRO: Serbia (continued)		The Action Plan for Water Protection will be adopted within two years after the Law on Environmental Protection enters into force.
SERBIA AND MONTENEGRO: Montenegro	EU directives have not been transposed into the national legislation. The legal basis for water protection is in the Law on Water.[4]	The Programme for Infrastructure Development highlights the need to develop and improve water supply and wastewater treatment. The Report on the State of Environment adopted by the government and the Ministry of Environment Protection and Physical Planning proposes measures for some concrete problems in the fields of air, biodiversity, soil and water.

DWD - Drinking Water Directive; **UWWTD** - Urban Waste Water Treatment Directive;
DSWD - Dangerous Substances in Water Directive; **ND** - Nitrates Directive; **BWD** - Bathing Water Directive

RESPONSIBLE INSTITUTION	RESPONSIBILITY	RESPONSIBLE INSTITUTION	RESPONSIBILITY
Dr Milan Jovanovic-Batut public health institute of the Republic of Serbia, 22 municipal public health Institutes	Involved in implementation	Hydrometeorological Institute, the Srbijavode and Vode Vojvodine public water companies, and the Jaroslav Cerni institute	Monitoring and protection of water quality, flood protection, collection of water charges and tariffs as well as research and development, involved in the preparation of planning documents and water management plans
Municipalities	Regulate and ensure functioning and development of waste water treatment services, development of utility services, purification and distribution of water, steam and hot water production and supply, inspection	**BW**: MoH, MoAFWM, Dr Milan Jovanovic-Batut public health institute	Implementation planning
UWWTD: Water Directorate within the Ministry of Agriculture, Forestry and Water management (MoAFWM)	Setting targets and developing strategies		
DWD: Ministry of Health (MoH)	Planning procedure, drinking water quality	DSW: Ministry of Agriculture, Water Supply and Forestry (MoAWSF), MoEPP, MoH	Implementation planning
Institute for Health	Monitoring drinking water supplies	MoAWSF	Quality of soils and agricultural land, water resources, water quality, wastewater
Municipal utility companies	Provision of drinking water	Local self-governing units	Wastewater collection, reconstructing and commercialisation of public utility companies
UWWTD: Ministry of Environment and Physical Planning (MoEPP)	Setting targets and developing strategy	ND: MoEPP, MoAWSF	Determines the target and strategy
Center for Ecotoxicological Research	Analysing toxic substances, preparing studies	Center for Ecotoxicological Research	Involved in the implementation
Local self-governing units[5]	Wastewater collection, reconstructing and commercialisation of public utility companies	**BW:** MoH, MoAWSF	Setting targets, developing strategy
		Hydrometeorological Institute, Institute for Health Protection, Institute for Marine Biology	Involved in implementation

TABLE 10

Overview of legislative framework, strategies development and roles and responsibilities of institutions — Water sector (continued)

COUNTRY	LEGISLATIVE FRAMEWORK	STRATEGIES AND PLANS
SERBIA AND MONTENEGRO: Kosovo (under UN interim administration)	EU directives have not yet been transposed.	No implementation documents exist. The Kosovo Action Plan is the only document. **Future actions and comments:** The Kosovo Environmental Action Plan is to be adopted in 2006.

1 The action plan distributed to all water enterprises and institutions involved, such as the Ministry of Health, the Ministry of Environment, the Water Technical Secretariat, and the Institute of Public Health, for consideration and action. A special group is created in the General Directorate of Water and Sewerage as part of the Ministry Territory Adjustment and Tourism for following and monitoring the application of the Action Plan.

2 The three regulations are:

- Regulations on Conditions for Emission of Waste Water into the Sewage approved by the Ministry of Agriculture, Forestry and Water Management in September 2001;
- Directive on Classification of Water and Categorisation of Watercourse approved by the government of Republika Srpska in August 2001; and
- Regulations on Emission of Waste Water into the Surface Water approved by the Ministry of Agriculture, Forestry and Water Management in September 2001.

3 The MoAFWM carries out the procedure of adopting the Water Management Master Plan by the Croatian Parliament. It also enacts and approves other planning documents in accordance with the Water Act and participates in preparing plans concerning water-related issues in cooperation with other state administration bodies.

4 Beside the Law on Water, the protection of water is regulated by other laws and by-laws [such as the Law on the Purity of Seawater (14/92), regulations on measuring methods and monitoring of quality of seawater for bathing and recreation (9/91), regulations on methods for determining and maintaining zones and belts of sanitary protection of potable water sources and restrictions in the related zones (8/97), and regulations on wastewater quality and methods of their emission into the public sewerage system and natural recipient (10/97, 21/97)]. Water standards are determined by water categories, which are set under the Decree on Categorisation and Classification of Waters (14/96).

5 All water sector infrastructures belong to the republic. The republic delegates its use and responsibility for service provision to municipalities, with each having its own water company.

6 No private companies and municipalities are represented in the Supervisory Board established by the Kosovo Trust Agency.

DWD - Drinking Water Directive; **UWWTD** - Urban Waste Water Treatment Directive;
DSWD - Dangerous Substances in Water Directive; **ND** - Nitrates Directive; **BWD** - Bathing Water Directive

RESPONSIBLE INSTITUTION	**RESPONSIBILITY**	**RESPONSIBLE INSTITUTION**	**RESPONSIBILITY**
DWD, **UWWTD**: Ministry of Environment and Spatial Planning (MoESP)	Planning procedure in water related issues	**DSW**, **ND**: MoESP	Developing strategies and targets for implementation
Kosovo Trust Agency[6] (KTA)	Managing public utility companies	KTA and socially owned enterprises	Contributes to implementation
Institute of Public Health	Controlling water quality	**BW**: MoESP, Ministry of Health	Developing strategy for implementation
		Municipalities	Supervising water resources

Project identification

As discussed in the previous chapter, the SEE countries are in the process of developing sectoral strategies that identify objectives to be achieved by the countries. The process of developing strategies is followed by development of more detailed plans, such as national waste management plans or water management plans, whose role is to identify projects leading to the implementation of strategies. At this stage it is important to develop lists of identified projects and to manage them effectively.

The local project proponents play an important role in this process through identification of their needs and developing project concepts. Cooperation between different levels of administration in this process is crucial.

This chapter highlights the status of project identification in SEE, and follows with a discussion on approaches and issues related to project identification on national, regional and local levels.

Overview of infrastructure identification in SEE

Identification of environmental infrastructure projects to achieve compliance with the EU directives is in the early stages of development in the SEE countries. Nevertheless, there are differences between the countries and sectors.

For example, in the case of the air sector and improvements of the large combustion plans, the situation seems to be comprehensively evaluated. In the framework of the Energy Sector Management Assistance Programme, prepared under the auspices of the European Commission and the World Bank, the project Development of Power Generation in South East Europe was implemented. As part of this project the study *Implications for Investments in Environmental Protection* was completed for this sector.[1] The study focused, among others, on:

- identification of all relevant environmental standards available in each country, as well as European Union directives and international treaties which may be applicable upon accession into the EU;
- estimation of the emission levels for each power plant in the region;
- identification of all environmental control technologies suitable to the characteristics of power plants and environmental standards; and
- estimation of environmental compliance costs for each power plant.

From this perspective this study gives an important input into the in-country work on investment strategies for the sector and provides guidelines for the future directions of country investment strategies and investment project development.

For the water sector, there are initiatives on project identification based on river basin management such as the DABLAS Task Force, which has identified and prioritised investment projects for Danube catchment areas. The initiative can provide useful examples and lessons learned for decision makers from the countries for developing water-related strategies with project identification.

Finally, the PEIP programme as such aims to identify and prioritise environmental infrastructure investment projects. Developing and updating regional lists of priority projects (see chapter 5) for the SEE countries is a learning exercise for national administrations which can be conducted in the future in more detail on the national level, while developing national strategies.

Table 11 presents an overview of selected environmental infrastructure in SEE. This information was compiled for the first time with the active involvement of the ministries of environment, who approved the data for publication in this book. Nevertheless, caution should be taken while interpreting the data, as it does not represent the final status of infrastructure, but the status of its identification at this very moment.

The table shows that in the future a lot must be done, especially in relation to building up inventories of landfills (legal and illegal), which would be the basis of planning for regional solutions and infrastructure for waste management.

In relation to water and wastewater connections, there is a clear sign that, although the water supply networks are relatively developed (although many are in poor condition), upgrading the sewage networks and constructing wastewater treatment plants represent significant challenges.

Table 11 below presents an overview of identification progress for selected environmental infrastructure in SEE.

Approaches to infrastructure project identification

National Level

Identifying projects on the national level is an important step to developing any financing strategy or compliance plan. There are various approaches employed by the countries. For exam-

TABLE 11

Overview of selected environmental infrastructure identification in SEE countries

	ALBANIA	BOSNIA AND HERZEGOVINA	CROATIA	former Yugoslav Republic of MACEDONIA	SERBIA AND MONTENEGRO		
					Serbia	Montenegro	Kosovo (under UN interim administration)
AIR							
Large combustion plants	5	9	35	5	21	1	6
WASTE							
Total number of landfills (number of illegal dumpsites)	12 county dumpsites	64 in RS; 50 in FBiH municipal dumpsites (many illegal)	252 operating landfills (more than 1,000 illegal dumpsites)	52 (plus 8 hazardous on premise of state companies)	About 180 disposal sites of communal waste (plus many illegal waste dumps)	24 municipal and 8 regional are planned	26 municipal landfills and dumpsites
Sanitary landfills	None	6 (almost sanitary) NEAP	65	None	6 (under construction or reconst-ruction)	1	8
Total number of incinerators (municipal, hospital, industrial)	None	None	None (see notes below)	3 (2 not in operation)	n/a	None	5 small incinerators (mainly used by hospitals)
Compliant incinerators	None	None	None	n/a	none	None	None
WATER							
Sewage connection as percent of population	40% (urban)	56% (urban) 72% (bigger than 10,000) 10% (small settlements)	70-75% (urban)	60% (urban)	60% (urban)	60% (urban)	28%
Total number of wastewater treatment plants	1 (under construction)	8 (2 not working) NEAP	82	3 (in agglomerat-ions above 10,000)	28	4 (1 not in function)	None
Percent of popu-lation connected to WWTP	None	4%	37%***	6% (urban)	23%	Around 10%	None
Percent of popu-lation connected to drinking water	85% urban 65% rural	56% FBiH, 48% RS.	76%	70% (urban)	83% (urban) 49% (rural)	90%	44%

See notes on following page.

TABLE 11

Overview of selected environmental infrastructure identification in SEE countries (continued)

Note for air sector: LCP numbers are according to the GIS study

LCP Albania: Fier Czech and China (2); Refineries (2), Elbasan steel factory, Elbasan Cement factory
LCP BiH: Gacko, Ugljevik, Tuzla (4), Kakanj (3)
LCP Croatia: TE Plomin (2), TE Rijeka, TE Sisak (4), EL-TO Zagreb (6), TE-TO Zagreb (7), TE-TO Osijek (2), INA refineries (4), DIOKI Zagreb (2), Belisce (2), Petrokemija Kutina (3), heating plants (Osijek, Karlovac)
LCP former Yugoslav Republic of Macedonia: Bitola (3), Negotino, Oslome
LCP Serbia: Nikola Tesla (8), Kolubara (2), Morava, Kostolac (4), Novi Sad (2), Zrenjanin, Sr. Mitrovica (3), Loznica (1), Bor (1), Novi Beograd (1)
LCP Montenegro: Pljevlja
LCP Kosovo: Kosovo A (4), Kosovo B (2)

Note for waste sector:

Albania: Unknown number of illegal landfills.
BiH: Three landfills mixed with industrial waste; six illegal landfills; information from the ministry, if environment, and National Environmental Action Plan (NEAP).
Croatia: 65 landfills are legal landfills or landfills in the process of legalisation; a well developed database exists, information source: National Waste Management Strategy, October 2005. Incinerators: There are no official incinerators, but there are four hospitals with their own incineration facilities. There are also private facilities with a small capacity for incinerating industrial waste (industrial cement facilities and others).
Former Yugoslav Republic of Macedonia: Well developed database for municipal landfill.
Kosovo: source of information: State of Waste Report, MESP, June 2005.

Note for water sector:

Croatia: Of 290 settlements with a sewerage system, 37 percent have wastewater treatment.

ple, a top-down approach is used when the projects are being identified on the national level and their location is determined by national authorities. The opposite is the bottom-up approach, in which the local project proponents are encouraged to submit their project proposals to the national authorities. As seen in Table 12, each solution has advantages and disadvantages. The conclusion is that, whichever approach is chosen, specifics of the infrastructure to be developed and the opinions of various stakeholders from different levels of administration should be taken into account.

Once infrastructure projects have been identified, they must be prioritised as to which should be financed first. This prioritisation needs to be based on objective criteria that have proved to be a successful way of justifying to donors and international financing institutions which projects are being promoted. Additionally, the prioritisation process is able to identify the most valuable projects, through which the objectives will be achieved in the most efficient way. The European Commission has developed a set of criteria for prioritisation to be used by the candidate countries (see Table 13).

Prioritisation is a flexible tool which can be changed depending on needs and objectives. Projects can be prioritised between sectors or between projects in the sectors. Projects can be prioritised to identify ready projects, the most important projects or bankable projects. The process should be transparent, in a way that all project proponents can understand why certain projects are scored higher and others lower.

The same caution should be exercised with other criteria; for example, the readiness of projects chosen as a criterion could unfairly discriminate against projects that are important but not yet ready. The readiness of projects might be taken into account once the priorities have been identified in terms of when the funding is required or allocated. Lessons learned should be identified after any prioritisation done and the approach (criteria, weights and scores) to be revised if needed.

The PEIP project assisted the SEE countries in conducting the prioritisation exercise. Prioritisation was done based on agreed criteria and led to the identification of priority environmental projects influencing the regional (SEE) environment and complying with the EU directives. Apart from this practical aspect, PEIP prioritisation gives the countries a starting point for prioritising their national lists of projects. Annex 3 presents the approach and results of the PEIP projects prioritisation. The

TABLE 12

Approaches to project identification

APPROACH	ADVANTAGES	DISADVANTAGES
Top-down	• ensuring economy of scale through promoting regional solutions • ensuring identification of the most relevant projects	• low level of public participation • proposed solutions (projects) might not be taking local conditions into account
Bottom-up	• more projects to choose from to create a list of projects • theoretically high level of public participation and projects might be better accepted by local communities • more detailed cost estimation	• lack of economy of scale, many small projects being promoted • more administration for national authorities

TABLE 13

Criteria for prioritisation at the strategic level and project level

Accession issues
- priority given to the directive in the context of accession (e.g. of transition period requested)
- status of transposition and enforcement of relevant legislation
- priority of the sector in national environmental strategies/plan

Financial issues
- availability of sources of finance*
- operation and maintenance costs
- level of income expected (e.g. from charges)

Technical issues
- complexity of project and technology used
- current status of project development
- resources available for project development

Commercial issues
- responsibilities for development and implementation clearly defined
- commercial framework established (e.g. contract for public private partnership)

Environmental issues
- severity of problem
- health impacts
- transboundary impact
- urgency of problem
- cost-effectiveness of proposed solution
- part of long-term strategy (e.g. sustainability)

Economic issues
- affordability of proposed charges
- affordability of proposed investment
- wider economic benefits (and costs) of the project

Institutional issues
- environmental impact assessment if needed
- necessary permits for construction/operation in place

Timing issues
- timing of financing

Source: COM (2001) 304 final

* The availability of financing should be taken into account during prioritisation with caution to ensure that the prioritisation will not discriminate against important projects only because there is no funding available.

results assisted the composition of the list of high priority projects in South Eastern Europe, which is presented in Chapter 5 of this book.

While developing the national lists, it is advised to develop one list, from which projects suitable for different donors can be identified. In later stages it is possible to develop sub-lists which would prioritise projects suitable for a particular donor (e.g. EU funds). The process depends on the purpose of the prioritisation.

Project identification and prioritisation are part of the accession-driven environmental investment planning process, which leads to the development of specific financing plans and strategies. The

TABLE 14

Accession driven environmental investment planning process

Project identification
Review each directive's requirements.
Assess the current situation to determine gaps in areas where investment will be needed.
Identify all investments needed for compliance (e.g. upgrading of infrastructure, new infrastructure, monitoring equipment).
Screen existing pipelines to identify which projects are already under way.
Investment planning
Identify the project proponents who will need to get the remaining projects under way (e.g. municipalities, utilities, private companies, environmental agencies).
Prepare preliminary cost estimates (e.g. capital, operation, maintenance).
Define priorities for investment projects on the basis of pre-set criteria (e.g. risk to health, environmental problems, availability of funding).
Develop comprehensive financing strategy, defining investment needs, finance sources and timing of individual projects.
Project preparation
Encourage/assist project proponents to prepare projects for financing and implementation.
Project implementation and financing
Financing and implementation of projects.
Assess if compliance with the directive's requirements has been achieved.

Source: PEPA Programme Tool PEPA/2 European Commission

steps needed for this type of investment planning process are presented in the Table 14. Apart from the steps presented for developing an investment plan, it is also important to see what the countries' experiences with investment planning were. Box 9 presents a case study on the National Plan for Urban Waste Water in Poland.

Local level

Project identification on the micro-level refers to the ability of a municipality to identify all environmental infrastructure improvements which are needed to comply with the legislation and to give them sufficient priority among other sectors' infrastructure needs (e.g. roads) so that these projects could obtain financing. It is important in the context of decentralisation, which gave the municipalities crucial new responsibilities related to providing environmental services.

Several tools have been developed that can support these process. Two of them are described in this chapter: capital improvement planning (CIPs) and local environmental action plans (LEAPs).

Capital improvement planning

The CIP methodology was not developed with the planning of environmental infrastructure in mind. Nevertheless, because municipalities will be engaged in developing environmental infrastructure at some point, the authors believe that this tool can be used for environmental sector planning and improvements, as part of the overall strategy for municipal improvements. It is especially important because often employees responsible for environmental improvements do not see other sectors' problems and links between them, and complain that environmental projects never receive enough attention and financial allocations. While often true, the competition between certain investment proposals in a municipality will never disappear, as there is never enough money to finance all project proposals. Therefore, integrated

BOX 9

Case study of the National Plan for Urban Waste Water in Poland

The National Programme for Urban Waste Water treatment was ratified by the Government of the Republic of Poland in December 2003.

The key features of the approach include:

- The plan outlines the investment plan with respect to water and wastewater management to be realised in order to achieve ecological effects required by the Urban Wastewater Directive.
- The plan was prepared based on the reports submitted by local governments, which include the state of sewage networks and sewage treatment plants in built-up areas, and plans for the future.
- The programme targets construction, extension and modernisation of urban water treatment plants and main collecting systems in 1,378 agglomerations by the year 2015. The expected result is the construction of about 21,000 km of sewage networks and more than 1,100 wastewater treatment plats. The estimated cost is EUR 8.75 billion.
- The programme will be realised with a contribution from EU funds, the national environmental fund and municipalities' own means. Also, the programme enables cooperation between the public and private sectors (public-private partnerships).
- To facilitate the implementation of the programme, the Interdepartmental Team for the National Programme of the Urban Water Waste Treatment was established. It comprised, among others, representatives of the Ministry of the Environment, the Ministry of Infrastructure, the Ministry of Interior and Administration, the Ministry of Finance, and the National Fund for Environmental Protection and Water Management.
- For projects which will have produced environmental benefits by the end of 2005, there are special privileges to investments, such as preferential terms of co-financing by the national fund.

Source: www.unep.org

(all sectors) and harmonised (criteria for prioritisation) planning in the municipality might assist environmental projects being prioritised properly (to be given higher priority).

The main steps of developing the CIP plan are:

- developing a municipal development strategy to identify and define problems, opportunities and objectives, as well as steps for their implementation, which gives long-term perspective to the municipality's development and is a basis for the CIP plan;
- an effective public awareness campaign, to involve citizens in planning the future of the municipality;
- adopting the decision of the council for developing the CIP, which allows all stakeholders to get involved and understand their roles in the process (the decision also appoints the coordination team, which develops the CIP);
- collecting investment proposal forms;
- prioritisation of investment proposal forms;
- analysis of financial projections of income and expenditures in the municipality;
- determining the structure of finance and sources of finance;
- publication of the CIP;
- monitoring and statistics; and
- updating the CIP.

CIP can also be useful in contributing to building up national programmes to identify sources of financing. There is a need to coordinate local and national stakeholders' activities to bring the objectives of the CIP to a successful conclusion.

It is believed that implementing the CIP is a successful way to find external funds (grants, loans, subsidies), especially in the context of some donors' financing, which require the existence of such a plan. CIP also provides a foundation for coordinated investment activities, as well as a guarantee that a time period sufficient for professional preparation of every investment project will be available. The plan guarantees objectivity in the decision-making process related to development, giving clear directions for the selection of investment projects.

Success with CIP requires it to be developed for at least for five years, be progressive in nature

(once projects for the first year are implemented, new projects for the fifth year are added), be adopted by the council before the adoption of the budget for the following year, and be developed on the basis of a unified form by various representatives, council commissions, municipal administration departments, the town's organisational units, as well as other entities, organisations, and residents of the municipality.

The detailed methodology for developing a municipal CIP was developed by the Governance Accountability Project supported by the US Agency for International Development and the Swedish International Development Cooperation Agency.[2] The methodology proved successful in many countries of Central and Eastern Europe, assisting municipalities to properly identify the investment challenge. Apart from developing a harmonised way to finance projects, CIP can contribute to savings in the investment budget of up to 15 percent and can increase planned investment capacities by 25 percent.[3]

Local environmental action plans

The local environmental action plan (LEAP) is a tool supporting the planning of environmental improvements in local communities. Several years of developing and implementing LEAPs in Central and Eastern Europe have shown them to be a successful way of achieving the following goals:

- improving environmental conditions in the community by implementing concrete, cost-effective action strategies;
- promoting public awareness of and responsibility for environmental issues, and increasing public support for action strategies and investments;
- strengthening the capacity of both local government and NGOs to manage and implement environmental programmes, including their ability to obtain financing from national and international institutions and sponsors;
- promoting partnership between citizens, local government officials, NGOs, scientists and the business community, and to learn to work together to solve community problems;
- identifying, assessing and setting environmental priorities for actions based on community values and scientific data; and
- fulfilling national regulatory requirements to prepare environmental action plans as required by some national governments.

In the context of investment planning for environmental infrastructure, LEAPs can contribute to the proper identification of environmental investments, and, through a dialogue of key stakeholders, can facilitate an understanding of the financial burden ahead and the consequences for local communities (e.g. the polluter-pays principle and the process of increasing tariffs). The methodology for developing LEAPs is described in the *Guide to Implementing Local Environmental Action Programmes* (REC 2001).[4]

LEAPs should be complementary to the CIP process, as they focus more on environmental aspects and usually do not go into detail as to the financial sustainability of proposed measures.

Role of regions

Preparation for accession to the EU brings regional development issues into the context of environmental infrastructure investment planning. There are at least three aspects[5] where the regional development process might interfere with infrastructure investment planning:

- regional government: new EU member states were encouraged to create an upper tier of self-government, both to complete the reforms of public administration and to stimulate socio-economic development;
- regional policy: regional policies are seen as a tool to direct public investment and encourage private investment to reduce the growing territorial disparities between regions;
- regional development planning: the process of allocating public investments based on focused regional strategies and priorities rather than nationwide sectoral programmes and targets.

The EU's Cohesion Policy calls for a regional approach, which is the basis for distributing EU financial assistance to the EU regions in relation to the Structural Funds and to the national level in relation to the Cohesion Fund. Although regionalisation is still far away on the agendas of the SEE countries, it should be taken into account during the planning of infrastructure projects (which usually takes many years to be completed). In that respect the following questions can be asked:

- Does the country have "natural" cultural, historical regions for which people feel ownership and local identity? If so, developing regional strategies could be a successful process, as it will bring local people (different stakeholders) together in the name of developing their region.

- Are there regional self-governments (county authorities)? What is their decision-making power? How can they support the process of project identification? How can they influence (promote or hinder) the development of an investment project?
- If they exist, can regional self-governments assist in overcoming the problem of economy of scale? Municipalities which received environmental responsibilities for assuring proper waste management and water management are often too small to develop a cost-effective investment project. It is therefore usually the case that regional solutions are proposed to develop a more cost-effective project. Regional level authorities can play a crucial role in this process by developing regional solutions and bringing all local stakeholders together.

General observations

National authorities should take advantage of the various European initiatives identifying and prioritising investment projects. They can provide useful support to the preparation of national lists of investment projects.

Effective management of project lists is an important element of achieving the objectives of a particular plan or programme. This management is the process of recruiting projects onto the list and developing them until they either contribute to the objectives of that list or may be eliminated. There are three elements of project list management: identification (getting projects onto the list), development (moving projects along the list), and screening and prioritisation (selecting projects for further and or future development). The process of managing lists of projects also requires dedicated human resources capacities at the national level.

Project formulation

What exactly is meant by project formulation and why is this issue treated with such an importance in this book? The authors' experience with developing infrastructure projects within the PEIP project at the pilot locations in SEE suggests that the importance of project formulation stage of project cycle management is often undervalued in SEE countries.

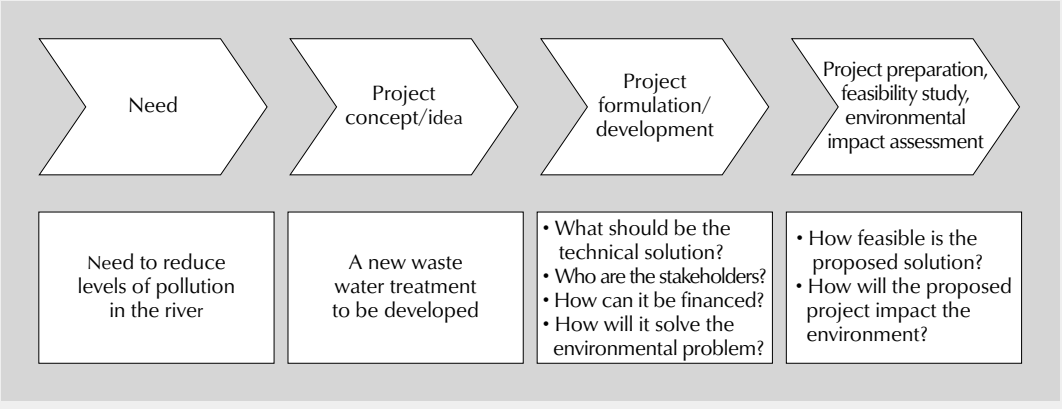
The project formulation stage is where the project idea (i.e. need) is shaped in a way that can be assessed (by potential donors and authorities giving licences); be ready for further preparation and feasibility check-up and be assessed that the proposed project will solve the environmental problem. Box 10 presents the role of project formulation in investment project development.

Overview of project formulation issues in SEE

The authors worked with the 33 pilot locations on formulating projects in the frame of the PEIP

BOX 10

Role of project formulation in PCM



programme. Together with the ministries of environment, the locations were chosen for technical assistance to be provided for project development. Several lessons were learned about the current challenges faced by local project proponents in developing infrastructure projects.

Work with the pilot locations focused on building capacity on developing investment projects and resulted in the development of strategic actions to be conducted by project proponents in order to move the project forward. Annex 4 presents the examples of strategies developed for two selected sectors. An overview of pilot locations environmental problems is presented in Table 15. An overview of developed summaries of strategies can be found on the REC website <www. rec.org>.

TABLE 15

Pilot hot spots in SEE taking part in the project formulation assistance

COUNTRY	SECTOR	NAME OF HOT SPOT	ENVIRONMENTAL PROBLEM	PROPOSED INVESTMENT PROJECT TITLE
ALBANIA	Air	Tirana — air quality	Significant air pollution (PM10) in the city due to old car emissions, small businesses using generators, self-combustion of the Shara landfill	Air Quality Improvement Strategy for Tirana City (investment stage not defined yet)
	Air	Elbasan city — metallurgical complex	Dust particulates and acid gas emissions from the metallurgical complex	
			Metallurgical Plant KURUM	Installation of Air Pollution Equipment at the KURUM Steel Production Facility
			DARFO ferrochromium plant (three electric arc furnaces)	Installation of Air Pollution Equipment at the DARFO Ferrochromium Production Facility
	Waste	Elbasan — industrial waste	Several industrial dumps of the metallurgy complex pollute rivers with heavy metals and phenol, soil and ground water, and air from the dust blown	Remediation of the Industrial Complex in Elbasan City
	Waste	Lac — industrial waste	The dump site of a plant comprising phosphate fertiliser factory, acid production plants, copper smelting and refinery plant, pollutes surface and ground water, and soil	Remediation of Industrial Complex of Lac
	Water	Durres (beach area/sea) — water pollution	Pollution of the Adriatic sea caused by direct sewage discharge into the sea	Construction of a WWTP for Durres (170,000 p.e.)
	Water	Kavaja (beach area/sea) — water pollution	Pollution of the Adriatic sea caused by direct sewage discharge into the sea	Construction of a WWTP for Kavaja Beaches
BOSNIA AND HERZEGOVINA	Air	Ugljevik — TPP flue gas desulphurisation	SO_2 emissions, due to high sulphur content of 5.4 percent, acid rain and transboundary pollution	Gypsum Type Scrubber for the Ugljevik Power Plant
	Air	Kakanj — TPP flue gas desulphurisation	SO_2 emissions and dust emissions; Gas emissions influence Sarajevo	Air Pollution Emission Control Strategy for the Kakanj-Catici Power Plant

TABLE 15

Pilot hot spots in SEE taking part in the project formulation assistance (continued)

COUNTRY	SECTOR	NAME OF HOT SPOT	ENVIRONMENTAL PROBLEM	PROPOSED INVESTMENT PROJECT TITLE
BOSNIA AND HERZEGOVINA (continued)	Waste	Kozarska Dubica — rehabilitation of landfill	Waste dump for municipal and industrial waste from Kozarska Dubica; River Una is 100 m away from the site, which is close to the drinking water extraction area	Rehabilitation of a Dump Site in Jasik and Construction of a New Landfill
	Waste	Sanski Most — rehabilitation of landfill	Waste dump for municipal waste and limited industrial waste; emissions into water, soil and air	Rehabilitation of Landfill at Dedovaca (Sanski Most)
	Water	Karanovac-Novoselija — construction of part of the sewage water system	Settlements along the Vrbas River discharge untreated sewage water directly to the river and ground; They are located in the protection zone of drinking water intake for Banja Luka	Construction of Sewers and WWTP for Karanovic and Novoseliija
	Water	Vrutci tourist area — construction of wastewater collection system	Wastewater discharged directly to the Bosna River; wastewater discharged next to the drinking water supply intake for Sarajevo	Construction of a Sewage system for Vrutci Settelment
CROATIA	Air	EL-TO Zagreb (TPP)	NO_X, SO_X and solid particulars emissions; Location close to residential areas	Reconstruction of 12.5 MW Boiler Combustion Regulation System of EL-TO Zagreb
	Air	TE-TO Osijek (TPP)	NO_X, SO_X and solid particulars emissions; location close to residential areas	Reconstruction of 45 MW Boiler Combustion System in TE — Osijek; Installation of Low NO_X Burners for the Power Plant and Abatement of SO_X Emissions
	Waste/ Brown-fields	Hrvatska Kostajnica — restoration of waste disposal landfill and construction of a new landfill	Dump site for municipal waste without protection measures; water from the site runs off into the Una River	Modernisation of an old landfill and construction of a new one
	Waste	Dubrovacko-Neretvanska County — regional waste management centre — Kokojevica and Sitnica landfill remediation	There is a lack of proper waste management in the county; there are two dump sites on the island of Korcula that lack measures	Phase I — Upgrade and Modernisation of two Landfills on Korcula Island; Phase 2 — Regional Waste Management Center
	Waste	Petrokemija phosphor-gypsum landfill remediation	Diffuse emissions; location of the landfill in the sensitive area of nature protection zone	Remediation of Phosphor-gypsum Landfill Site "Petrokemia"
	Water	Slavonski Brod — WWTP	Discharges of waste water from Slavonski Brod to the Sava River	Construction of WWTP for Slavonski Brod
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	Air	Air desulphurisation in TPP Oslomej/Kicevo	Emissions of particulates, SO_X and NO_X to the air	Semi-dry Scrubber Installation for the Oslomej Power Plant

TABLE 15

Pilot hot spots in SEE taking part in the project formulation assistance (continued)

COUNTRY	SECTOR	NAME OF HOT SPOT	ENVIRONMENTAL PROBLEM	PROPOSED INVESTMENT PROJECT TITLE
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	Water	Bitola — WWTP	Untreated waste water from Bitola discharged into the Dragor River	Construction of a WWTP for 1,000,00 p.e. and Upgrading the Collector System for Bitola
(continued)	Water	AD OHIS — WWTP Skopje	Untreated waste water from the OHIS discharged to the Vardar River	Upgrading a WWTP for AD OHIS Industrial Site
	Waste	Lojane — remediation of illegal hazardous waste landfill	Industrial mining dump site without environmental protection measures — heavy metals and toxic compounds pollution	Rehabilitation of Lojane Mine Waste Dump
	Waste	AD OHIS — treatment of HCH waste from former lindane production plant in Skopje	Hazardous waste dump site; By-products from the former lindane production plant	Remediation of HCH Dumps
SERBIA AND MONTENEGRO	Air	Nis — monitoring of suspended particles in the air	Emissions into the air from a tobacco factory; high concentration of heavy metals	Investigation to Identify the Source of Major Emissions and Their Remediation at the Tobacco Factory in Nis
	Air	Niksic — steelworks factory	Emissions into the air from steelworks — particulate emissions and acid gas emissions	Installation of Pollution Control Equipment on the Energy Block and Steel Production Facility at the Niksic Iron and Steelworks
	Waste	TPP "Kolubara" Prerada Vreoci — briquette production plant, Lazarevac	Dump site for waste coal disposal from the Susara coal drying plant; air pollution from coal dust for the settlements causes respiratory problems for inhabitants	Construction of a Coal Briquette Plant
	Waste	Pljevlja — lead and zinc mining	Hazardous waste from tailing area with high concentration of heavy metals; water from the site runs directly into the Cehotina River	Remediation of Pljevlja Taling Dumps
	Water	Sabac — WWTP	Discharges of municipal waste water into the Sava River	Construction of a WWTP for the City of Sabac (193,000 p.e)
	Water	Podgorica — WWTP	Discharges of untreated wastewater into the Moraca River	Upgrading a WWTP (First Phase) and Construction of a New WWTP (Second Phase) fo Podgorica (275,000 p.e.)
KOSOVO (under UN interim administration)	Air	KEK-Obiliq — TPP Pristina	Emissions to the air of particulates, SO_X and NO_X; plant is close to residential areas	Air Pollution Emission Control for the KEK Power Plant Power Plant
	Waste	Trepca-Mitrovica — lead mine	Dump site from the tailing area of the lead mine; high concentration of heavy metals in soil and water	Remediation of Mitrovica Industrial Complex
	Water	Peja — regional WWTP	Discharges of untreated wastewater from Vranac	Construction of a WWP for Vranac

Lessons learned

The following lessons were learned during the course of project formulation with the pilot locations in SEE. The authors believe that although work focused on providing assistance to 33 locations in each entity, the chosen pilot projects represent a broad range of problems in the air, water and waste sectors, as well as stages of project development. These lessons learned are therefore applicable to the entire SEE region.

Policy aspects

- **Lack of enforcement:** Project proponents do not feel any pressure from the state to start implementing projects. For example, in the case of industries or thermal power plants, the majority of project proponents face only minor financial losses from pollution charges or non-compliance fees. At present, these environmental fees are set at very low levels and infrequently collected. Often, there is no mechanism to return the collected amount from the central budget to finance pollution abatement measures.
- **Integrated approach:** Project proponents do not see their project as part of a larger integrated project. It is especially relevant for waste sector projects, where an efficient waste management system consists of several elements of infrastructure to be developed (e.g. recycling, sorting). In the case of old landfills requiring remediation, the funds for remediation can be more easily generated if the remediation is one element of a bigger project which provides an integrated waste management system for the whole area in question. In the case of air sector projects, project proponents often took a narrow approach to addressing pollution mitigation. Most investment projects consist of controlling only one or two types of pollutants, rather than applying an integrated pollution prevention and control approach. In certain cases, the installation of emission control equipment for a single pollutant may influence the emission of other substances as well. Also, changes in operation efficiency or applying alternative methods, such as replacing higher sulphur content oil with a fire mix of oil and gas in thermal power plants, could yield the desired emissions reduction. Water sector projects often lack an integrated approach to developing a sewage network together with wastewater treatment plants.
- **Responsibilities:** In many cases the development of projects is hindered by the fact that no staff is appointed to work on project development. Appointing the responsible staff from the very early stages of project development might help develop the project quicker. Additionally, project proponents lack knowledge as far as what sort of human capacities are needed to work on project preparation and implementation.
- **Low priority:** Environmental projects usually garner very low priority from decision makers: a significant obstacle for environmental authorities seeking support for their project's development.

Financial aspects

- **Lack of cost estimates:** The majority of pilot projects lacked cost estimates, mainly because of missing knowledge on methodologies on conducting such financial analyses and the lack of unified approaches. This may influence the final quality of the infrastructure constructed. In the future, attention should be paid to providing more technical assistance on estimating project costs for infrastructure projects.
- **Low cost measures:** In most cases the environmental situation of the sites is well recognised and the impacts are known. Regardless of this situation, project proponents often fail to introduce low-cost measures to prevent or reduce the scale of pollution. For example, in the case of sites foreseen for upgrade or remediation, there is a lack of a fence or a temporary cover. In the future it should be taken into account that while developing an investment project and while waiting for the "big money" to come in, the project proponent should implement low-cost measures to reduce pollution.
- **Cost recovery:** Analysing the levels of charges for waste collection and treatment in SEE and for water sector charges, it is evident that the charges are set at very low levels and are insufficient to provide cost recovery. In many cases, the tariffs cannot provide for operation and maintenance costs. Implementation of the polluter-pays principle is a critical issue here. Comprehensive analyses are needed on a project level to increase the financial sustainability of utilities and in the process of increasing tariffs and checking their affordability levels.

- **Additional costs**: Often, project proponents do not include in their calculation additional costs that might occur during project development and after completion of the project. For example, in the case of thermal power plants these additional costs might include: excess operation costs of the new equipment; the provision of raw materials (e.g. lime and water in the case of a gypsum type scrubber); and the cost of disposing of the collected material (e.g. from an electrostatic precipitator).

Technical aspects

- **No clear ownership:** In many cases, unclear ownership of the plants and land prohibits project promoters from moving the project forward. In the case of industries, often the process of privatisation hinders project promoters in their efforts. In the case of state-owned industries, it is not clear who should start to develop a project, as there is a lack of polluter-pays principle incentives (charges on pollution). Furthermore, state institutions are concerned that the cost of environmental improvement might reduce industrial competitiveness. In the case of municipalities, there is no clear ownership of the land or future sites for waste management facilities. It is also the case of thermal power plants, which are in the process of privatisation or have mixed ownership (public and private), which makes it difficult to clarify who bears responsibility for the financial aspects and implementation of the investment project.
- **Existing documentation:** In most of the cases, feasibility studies and other documents exist for the proposed projects developed by various international donors in the past. Nevertheless, there were often no steps taken following the feasibility studies, and therefore they became outdated. These documents, however, can provide a useful background for developing investment projects in the future, when project proponents will need to pay more attention to the assistance offered by the international community. This assistance needs to be integrated into the overall system of investment project development.
- **Well recognised environmental situation:** The environmental situation of project locations is usually well assessed (especially in the case of industrial waste projects and thermal power plants). The project proponents know exactly what the environmental problem is and what the impacts of this problem are on health or ecosystems. Therefore it can be concluded that the project proponents have well prepared staff who are aware of the environmental impacts of pollution. Nevertheless, alternative solutions should also be analysed and included in the formulated proposal, assessing the feasibility of different solutions and providing arguments for the chosen technology. This approach is highly advisable to follow, as donors are keen to see that project proponents have a wide view and understanding of the situation and that they are aware of application constrains.
- **Brownfield development:** Many of the sites in SEE could also be developed as brownfield projects. In general, project proponents lack the knowledge on methodologies and practices, on how their environmental problems can be integrated into a bigger brownfield development project. The regeneration of polluted sites can be seen as an investment opportunity, especially for those sites which are not heavily polluted (low costs of regeneration).

Obstacles to municipal project financing

Building on the findings from the work on project formulation with the pilot sites, this section presents selected aspects of challenges and opportunities for the municipal project proponents on developing infrastructure investment projects. The text below focuses on municipalities within their new responsibilities resulting from the decentralisation process. First of all, it is important to identify the main obstacles preventing municipalities from financing environmental infrastructure projects.

Although there are differences in the region (for example, Croatia is a candidate country with actual municipal environmental lending taking place, while in Kosovo, which is under interim UN administration, the concept of local self-governance is hindered by the administrative power imposed by the international community), there are obstacles which can be identified for all of the countries. These challenges can often be observed, to a lesser degree, in the new EU member states of Central Eastern Europe (Poland, Hungary, Slovakia, Czech Republic and Slovenia) as well. They prevent

municipalities in most countries from fulfilling their legal obligations in the environmental sector (i.e. obligations that are clearly theirs), regardless of the level of economic development, or the status of statehood and nation-building.

Financial obstacles

Revenue and expenditure assignment mismatch

Financial shortfalls are present in Central Eastern Europe as well as in SEE. Essentially this discrepancy means that mandatory municipal tasks are under-funded or not funded at all. Those functions and responsibilities that are assigned by law to the municipal level do not receive adequate funding from the central government, and local revenue-raising capacity is weak or hindered by the fiscal appetite of the state itself. There is no question that education, health, public safety, and environmental duties at the municipal level do not receive adequate funding for operational purposes. In addition, maintenance and amortisation costs are not refunded, leading to the effect that public property is neither maintained nor upgraded. In this kind of environment, municipalities operate with implicit deficits, quickly depreciating the condition of their assets and providing inadequate maintenance. Hence, a large investment deficit accumulates which neither the state nor the local level wishes to address.

Financial Capacity

The issue of financial capacity is dramatic in its ability to prevent local investment in any infrastructure, including environmental infrastructure. Financial capacity has four inter-related aspects:

- Firstly, are tariffs and fees imposed by a municipal decision affordable for the population and business users of the services? Are they in line at all with household incomes?
- Secondly, there is political resistance to imposing tariffs and fees that cover more than operational expenses. The concept of capital expense and depreciation is difficult to track in the public sector, and even more difficult to explain to the public. Municipal institutions, often the largest users of water, wastewater and solid waste services, would face strains in their budgets if tariffs were set at a level that covered all costs, including capital costs. It is simply too easy to keep tariffs low, ignoring capital costs.
- A third aspect of municipal financial capacity concerns the ability of SEE municipalities to pay all of their current expenses from current revenues. It is quite apparent that a significant portion of SEE municipalities experience the occasional "unpaid bills" problem, where invoices are simply put in a queue, often left unpaid at the end of a budget year, and are hidden away to be paid from the next budget. The clear inability to generate persistent and recurring operational surpluses from funds that are legally available for debt service is a major hindrance to the improvement of environmental conditions in SEE. This hindrance has nothing to do with the legal framework for borrowing, nor with environmental regulations or awareness. Municipalities with explicit or hidden operational deficits year after year simply are not creditworthy in any sense, and their first priorities, were they suddenly creditworthy, would not be environmental projects with long-term and "invisible" impact.
- Capacities of municipalities to develop, prepare and manage projects effectively are also limited, especially for financial aspects of project development.

Borrowing on commercial terms

Grant-seeking — maximisation of "free money" — with borrowing left as a last resort, is a phenomenon also observed in Central Eastern Europe. There is a certain "donor seeking" mentality at the municipal level, which is seemingly coupled with a truly rational fear of debt. There is a clear expectation that municipalities will seek those kinds of projects that have overwhelming "free" support from donors or higher levels of the state. This type of grant-seeking mentality also delays the need to start thinking about project development taking all costs, sources of repayment, etc. into account. Moreover, projects financed with EU money must have a full cost-recovery strategy in place as well.

Subsidised loans, often linked with policy changes and other conditions, take three to five years to plan, approve and disburse. Loans that come either directly from an IFI, or through a central government ministry or designated bank, often discourage domestic banks from developing their own loan products. The potential borrower, in its efforts to first maximise grants, then to seek as many "inexpensive" loans from IFIs and other donors, lose many years of environmental bene-

fits, as the types of feasibility studies, engineering detail and policy conditions that are attached cause delays of many years. In the meantime, the service is not provided, the environment is further degraded, and projects can be made more expensive since the financing is deemed to be inexpensive.

Overall, "hard" loans that require technical content that is realistic and affordable could be the better option, rather than seeking "free" loans that have many conditions unrelated to the task at hand. In other words, "hard" loans with market rates may encourage municipalities to propose projects with truly full cost-recovery pricing (utility fees). If the capital cost is too small, and the technical requirements not adjusted to developing country standards, the systems that are built will only result in full cost recovery in theory. The high tariff, caused by excessive technical content and low interest rates, will only result in cost recovery on paper. It will be unaffordable yet perfect in theory.

Debt service limits

Some debt and debt service limits are too stringent in comparison with the magnitude of potential projects. In other words, limits that constrain the total stock of debt and tie it to a fraction of a given year's current budget do not take into account the reality that these investments have a useful life of 20-30 years. Therefore applying the entire investment amount or loan amount to just one year is a faulty methodology.

Policy obstacles

Lack of lobbying power

Municipalities and their political associations have close to zero lobbying power on the national level. As a consequence, laws that are clearly in their interest can be delayed or simply ignored. A prime example would be the public debt laws developed by US Treasury advisors and local stakeholders in both entities of Bosnia and Herzegovina. Those borrowing laws, were they in place, would lay out a clear framework for financing environmental projects at the sub-sovereign, even municipal level. Passage of such laws would contribute to fiscal decentralisation, local autonomy and economic development. No one is advocating the needs and rights of the municipal sector in that political context. This type of weakness is observable in other SEE countries as well.

Problem recognition

At the municipal, local self-government level, environmental investments are a lower priority than transport infrastructure, and economic development (i.e. job creating) projects. This is especially true regarding wastewater projects, where the population and elected leaders can refer to traditional methods of household wastewater disposal, and unless potable water sources are visibly affected, convincing the population that there are long-term effects to using improper septic tanks is very difficult. The political leadership in areas that are seeking independence, or trying to stop independence, or recovering from newly-found independence, do not regard environmental projects at the municipal level as a priority. State-building and the establishment or disestablishment of institutions takes a higher priority, and the funding schemes reflect this approach.

Economies of scale

In technical, economic and political terms, project sponsor units (i.e. municipalities) are too small to efficiently construct and operate environmental infrastructure, especially in the solid waste area, where population equivalents of 100,000 are needed. Municipalities face legal, accounting, ownership and other obstacles to jointly sponsoring projects that have adequate scale economies. Assembling clusters of municipalities that get along politically, and also have financial and technical rationale, is rarely achieved. In other words, municipalities that have the legal obligation to provide certain services are too small in technical and economic terms to be able to do so, and the next level of administration is usually too undeveloped, and administratively and politically unready to assume this role.

One very solid argument that neither decreases the number of municipalities nor artificially increases their size, is the British or Scandinavian approach, where vital environmental services are simply the mandatory task of regions or higher level authorities, leaving the municipalities, regardless of size or number, free to engage in their other mandatory duties.

The creation of regions where none have existed before, or the combination of existing levels of self-government into regional are politically controversial everywhere, and take significant time to convince all participants that it is rational. The rational application of the "subsidiarity" principle, which means taking environmental responsibilities away from the municipal level, may be simpler to achieve than to increase the size and/or decrease the number of historical and existing municipalities at great political cost. Even in the case that it is possible for the municipalities to jointly establish communal companies or jointly

managed public service agencies, there are many difficulties with tax, accounting, and general legal arrangements to make such efforts work properly. The lead or largest municipality has difficulty in recovering all of its costs associated with managing the joint project; the smaller members do not have enough influence if their capital contribution or population size is only represented proportionally; and the technicalities raised by tax officials, banks and other involved institutions are real hindrances that are not addressed in practical terms by framework laws.

Poor application and enforcement of laws

Another hindrance to project development is that environmental enforcement and the imposition of fines and fees at all levels are insufficient to encourage project development and to discourage pollution. Municipalities are not "punished" by higher levels of the state if they cannot conduct certain mandatory activities on account of financial and capacity problems. Additionally the municipalities do not have the power to impose local fines on polluters who represent higher levels of the state. Municipalities are not penalised if their population does not have adequate wastewater or solid waste processing facilities.

The polluter-pays principle is seldom fully and effectively applied at the national level; thus municipalities have little leverage over large polluters who provide employment in a community and who may be owned by a state holding company or even a ministry. There are shared responsibilities in some areas such as health care and education, where the municipality is responsible for maintenance and operational expense, and in theory, the state is responsible for capital improvements. The population demands proper operation and perhaps some level of maintenance. However, municipal leaders cannot afford to conduct capital investments on behalf or instead of the state, nor can they force the state to, for example, treat sewage that flows from health care and other facilities located within a certain municipality. Thus, split responsibility for operational and capital expenses is a real hindrance. With the exception of Croatia, the entities studied do not levy a high environmental user charge, so municipalities that themselves are water polluters through their institutions have little incentive to invest.

Ownership

There are uncertainties regarding the ownership of certain environmental assets, especially if a group of municipalities decides to engage in joint projects. In the Republic of Serbia, all former municipal property remains in state ownership, with the right to use being transferred to municipalities. Under these conditions, a Serbian municipality could build a new water treatment plant with borrowed funds, only to have the entire facility become state property, even though the municipality and the tax and fee payers have financed it from their own resources. This is a major disincentive to municipal investment of any type. The exact fate of communal service companies — founded and owned by municipalities — in the privatisation process is uncertain in most entities (besides Croatia). The risk of financing, the responsibility of operations, and the right to ultimately own an asset are disconnected from the hindrance of environmental investment. Formerly state assets, including military facilities, that are privatised or waiting to be privatised could be a source of "hot spots" due to groundwater contamination, hazardous waste, munitions, etc. However, all municipalities in SEE, have difficulties in enforcing standards that pertain to privatised state assets, former military property etc. that fall within the political boundaries of a municipality. In other words, a municipality has no power to force a clean-up on state property or privatised state property. There is a lack of coordination among the levels of government that leads to burden-shifting, responsibility-shifting, and ultimately environmental negligence.

How to overcome the obstacles: selected issues

This section discusses some key elements which might assist the municipal project proponents in developing environmental infrastructure projects.

Working with national authorities

Cooperation with the national authorities is crucial to the successful implementation of an investment infrastructure project. It is important to ensure that the proposed project is part of national (regional) strategies and plans, which provides better justification for financing to both potential donors and municipality authorities and service users. In order to be included in such plans and strategies, the need for financing should be well communicated to the national level authorities to help them understand what the problem and proposed solutions are.

By the same token, the national authorities should enable proper incentives to stimulate the development of environmental infrastructure. At first glance, countries in the region offer some tax incentives for municipal construction of environmental infrastructure. These include liberal tax policies (see Box 12 for the example of Croatia), tax incentives (former Yugoslav Republic of Macedonia) as well as newly established environmental funds that are supported in part by fines and user charges.

One method for providing incentives is a working legal framework that allows municipalities to form associations with neighbouring municipalities. In practice, key issues such as ownership of jointly-constructed assets are either unregulated or subject to contractual arrangements. Funds for creating associations are to come from municipal budgets or from sources that are not defined by law.

Decentralisation

Decentralisation is an ongoing process in the countries of South Eastern Europe, and its effects are felt in the carrying out of environmental functions. Once the lower levels of administration receive new functions with respect to providing environmental services, the challenges of identifying, developing, preparing and implementing bankable projects are also shifted to their level. Therefore, it is important to analyse the status of decentralisation at the moment in the region and what can be expected in relation to new functions and the preparation of environmental infrastructure projects.

What is quite apparent (see Annex 2, Table 26) is that in most countries of the region, the responsibility for water service, solid waste service, and sewage treatment falls squarely on the lowest self-governing municipal level. The Federation of Bosnia and Herzegovina is a slight exception, where some of these functions (Nuts IV level) are handled by the cantons. Each canton essentially has its own laws on local self-government, and the canton may assume any power that is not delegated to the entity or to the state. Each canton may assign and remove functions from the municipal level with a change in its own legislation.

The other exception is Kosovo (territory under interim UN administration), where most municipal powers are retained by the Kosovo Trust Agency (KTA). It is difficult to state that there is a self-governing municipal layer in that area. Traditional municipal responsibilities also rest with the international community's local representative, embodied by the KTA.

The unique situation of Kosovo has the KTA in charge of municipal functions and responsibilities instead of the municipalities themselves. Issues that are the competence and responsibility of the Nuts V level in the other surveyed entities belong squarely to the KTA, including ownership of environmental infrastructure assets. In this sense, KTA has powers and responsibilities that belong to self-governments in other entities, so conclusions about municipal financing of environmental projects are very difficult to determine for Kosovo. Eventually, powers retained by the KTA should be assigned to the municipal layer as in other countries.

Along with the responsibility for service provision in the water, solid waste and wastewater sectors comes ownership of the assets that provide these services. It goes without saying that if a municipality is responsible for service provision, and owns the current facilities (or may own future facilities), then it will need to propose bankable projects that cover not only operational costs, but also the costs associated with depreciation. With the exception of the Republic of Serbia, where the state retains legal ownership over all municipal assets, and the unresolved situation in Kosovo that has it under interim UN administration, the countries in the region have legal ownership over environmental assets. They have the capability to impose fines, to set user fees, and to create legal entities or municipal departments to perform these environmental functions. Significant differences exist in the level of state involvement in approving user fees (tariffs). The state in all of these countries retains the right to set discharge standards, construction permit procedures, etc.

It seems that municipalities in the region have freedom to establish commercial firms, to issue concessions, or to form municipal associations in order to carry out these functions. The actual effectiveness and ease of implementation, the financial feasibility, etc. of such joint efforts varies widely across the entities.

It is true that many countries in the region have decent municipal borrowing laws, budget laws and other regulations in place that enable environmental investment to be financed by a loan. In practice, however, very few loans have been awarded to finance water, wastewater and solid waste projects in cases where the sponsor is the municipality.

BOX 11

Keys to overcoming obstacles to municipal financing of infrastructure projects in SEE

- An effective public relations campaign might assist in overcoming the "not-in-my-backyard" (NIMBY) syndrome.
- Cooperation between municipalities, regional administration and national authorities should be developed, and national authorities must provide incentives for developing investment projects.
- Decentralisation of environmental functions for providing public services leads to the need to identify clear ownership of projects.
- Environment infrastructure investment projects need to be integrated into the overall local government budget.
- Municipal projects should achieve cost recovery and the polluter-pays principle should be applied in tariff setting as a long-term goal.
- Affordability for citizens should be taken into account when designing tariffs and setting tariff levels.
- The proper sizing of projects is essential to avoid oversized investments and unutilised infrastructure.
- Project location needs to be selected carefully, reflecting on the issues of job creation, social acceptance, availability and ownership of the land, costs incurred during and after implementation, impact on environment and ecosystems, and the will of the municipality to implement the project.

BOX 12

Example of Croatian incentives

The general system of tax legislation in Croatia applies to all investments, including provisions to make environmental investments more attractive. The Act on State Aid (O.G. 47/2003) and the Regulation on State Aid (O.G.121/2003) prescribe assistance for environmental protection activities as follows:

- remediation of polluted areas (100 percent eligible costs = cost of labour minus increased land value) if the person responsible for pollution is unknown or costs cannot be imposed upon that person;
- current activities, if they significantly contribute to environmental protection;
- adjustment to new obligatory environmental standards by small and medium-sized enterprises (SMEs) — up to 15 percent of eligible costs in the period of three years from the acceptance of standards;
- achievement of a higher level of environmental protection than is determined by obligatory standards, or investment in environmental measures for the period when obligatory standards did not exist: up to 30 percent of eligible costs to big enterprises, and up to 40 percent of eligible costs to SMEs; and
- energy efficiency and the production of electrical and thermal energy in the same time as well as for renewable sources of energy: up to 40 percent of eligible costs to big enterprises, and up to 50 percent of eligible costs to SMEs.

According to the Value Added Tax Act (O.G. 47/1995, 106/1996, 164/98, 105/1998, 54/2000, 73/2000, 48/2004 and 82/2004), foreign donations, including donations in the environmental sector, are exempt from VAT provided that a contract between the donor and beneficiary or a statement of the donor exists, and that beneficiary is a non-profit institution (e.g. national and local authorities, humanitarian associations). For example, VAT relief is applied to the EU LIFE III – Third Countries, PHARE programmes and international agreements in environmental protection, including the VAT relief provisions. VAT relief is being operationally implemented by the Ministry of Finance, Tax Department.

Local government budgeting

When looking municipalities, the environment infrastructure investment project cannot be seen separately from the overall local government budgeting. Where a grant or a loan has been granted, the municipality still has to provide its own contribution as part of the co-financing required. Additionally, the resources have to be gathered to ensure cost recovery. Therefore, there are important interactions between local government budgeting and planning for investment project development. Issues related to these interactions are presented in Figure 4.

Polluter-pays principle

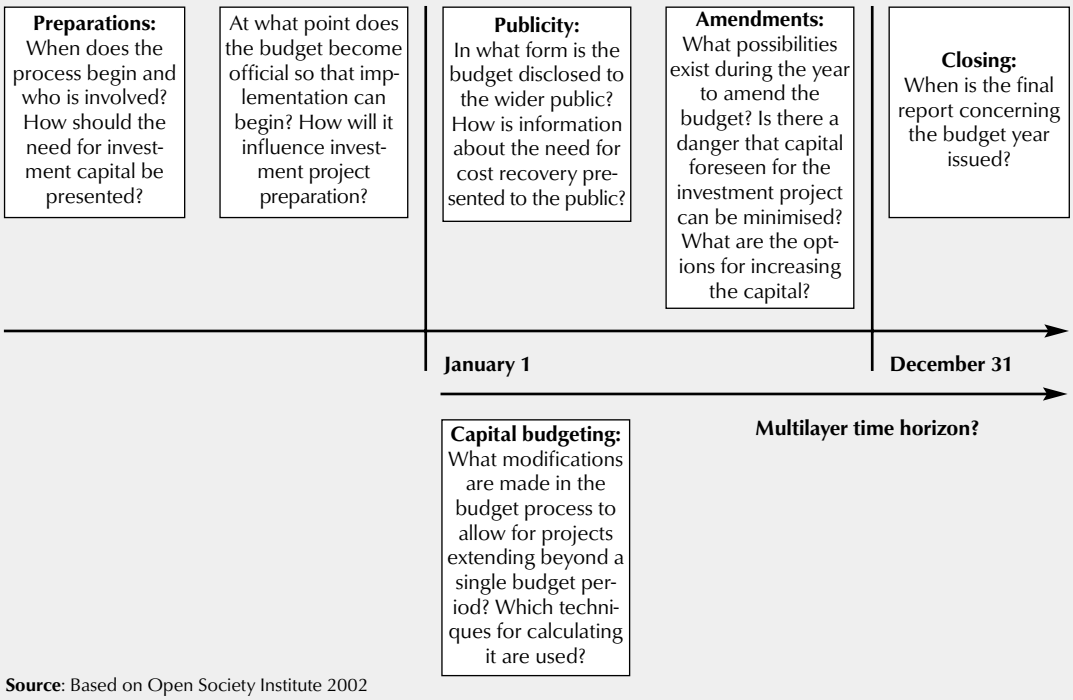
Cost recovery and application of the polluter-pays principle is one of the most challenging issues to overcome in SEE. The importance of this challenge is often underestimated. When applying for grant money, project proponents do not see the challenge of achieving cost recovery. Moreover, they are facing difficulties in explaining to service customers why, despite receiving the grant, they have to pay higher charges for the service. In the case of applying for a loan, it has to be taken into account that cost recovery is not the only consideration. The tariffs must also reflect the cost of paying back the loan, and therefore the tariffs will be higher.

Municipalities set or confirm environmental utility charges in all countries in SEE. Croatia has a sophisticated law on utilities and, formally, the utility sets prices and the municipality approves them. There are other, strictly earmarked charges that the municipality may set directly for financing environmental infrastructure (construction of landfills, water supply, sewage and waste treatment facilities). In Croatia, utility prices cover operational and maintenance costs in principle, but they may also include the amount for financing the capital costs, which is allocated to the local budget. The investment has to be a part of the yearly Programme for Construction of Infrastructural Facilities and Devices adopted by the representative body of the local unit. The other exception is Kosovo (territory under interim UN Administration), where the KTA sets municipal utility prices; the municipalities do not have these kinds of powers.

In some countries of the region (see Annex 29, Table 2), national tariff guidelines are in place and must be followed. Croatia and the Republic of Montenegro set multi-annual tariffs, while the other entities repeat the process every year. Croatia, which has a special law on utilities and a strong currency, and Montenegro, which uses the Euro as its official currency, are exceptions to the rule, with lower domestic inflation than is prevalent in the region. In Albania, a national regulatory body

FIGURE 4

Planning for including an investment project into the local budgeting



Source: Based on Open Society Institute 2002

BOX 13

Issues for setting tariff levels

A lack of knowledge and skills in relation to setting tariff rates in most countries in the region is one of the main obstacles to cost recovery and paying back the loan. The dilemma is how to balance between providing a cost recovery rate and, at the same time, to provide adequate service to all inhabitants, to provide safety of operations and efficient management, in order to have a rate which is affordable for service users.

The common problems with tariff rates in most countries in the region include: political influence on the rate, lack of a regulatory body, lack of methodology for tariff increase, and lack of a developed process for tariff increase.

The process for increasing tariffs influences different stakeholders participating in the process and creates possible conflicts of interest.

Taking as an example a situation where a municipality is receiving a loan from an international financing institution and the project is developed by a utility company owned by the municipality, the following stakeholder interests might appear:

STAKEHOLDER	ROLE	STATEMENT	INTEREST	ACTION
International financing institution	Providing capital investment	"We want our money back."	Ensure cost recovery	Increase tariffs
Municipality	Compliance with the EU legislation	"We are providing better life conditions."	Win next election; Control tariff setting	Decrease tariffs
Utility	Provision of adequate services	"We provide high quality service."	Maximise profit; Have a liberal market for tariff setting	Increase tariffs
Regulatory body	Ensuring that tariff rates are set at an appopriate level	"We are taking into consideration all aspects needed."	Ensure fairness of tariffs (profit/ expansion/coverage of service)	Neutral
Service users	Using the service	"We expect high quality service."	Pay as little as possible	Oppose the increase of tariffs; Use less of the service

The diversity of relations between different stakeholders suggests that the process of tariff design requires special attention. Issues to be taken into account include:

- Increasing the tariff might result in deficiencies in the management of the utility. Therefore, special attention should be paid to assessing whether the utility has done everything to improve efficiency in the management and operation before the rate of tariff is to be set.
- Improper accounting might produce a false rate of tariff. A uniform system of accounting is needed to distinguish which expenses are linked to capital costs and which are linked to operational expenses. Additionally, which expenditures should be capitalised by the utility and how the inflation rate has been taken into consideration to adjust the accounts must be analysed.
- The lack of benchmarking might promote an inefficient rate of tariff. Benchmarking with other utility approaches within the country, as well as outside the country, stimulates innovative approaches and the comparison of rates.
- A sound understanding of the process of increasing tariffs speeds up the process. The utility should identify and analyse the requirements of the regulatory bodies, as well as which documents are needed and how quickly the process advances.

BOX 13

Issues for setting tariff levels (continued)

- Public participation improves the acceptance of an increased tariff. The utility should prepare a strategy for public hearings about the process of increasing tariffs. Information about the planned process of tariff increase should be distributed to all service customers to make then understand what infrastructure is going to be improved or/and constructed, and what the benefits to their quality of life will be. Additionally, a strategy for treating disadvantaged groups of citizens (the poor, unemployed, the retired, etc.) should be elaborated.
- Optimising the use of this service helps to avoid over-sizing of the infrastructure. The utility should inform the customers on how to optimise the use of a service (e.g. water consumption). Through this, the future design of the infrastructure needed will better reflect the future use of the service. The introduction of individual metering of the service might improve the situation.

develops guidelines and approves water rates set by municipalities. The former Yugoslav Republic of Macedonia also applies national guidelines that must be followed by municipal councils when setting tariffs.

Water and wastewater tariffs are set such that, in theory, were they fully collected, they would cover operational and maintenance costs at the very least. Capital costs in Croatia may be covered from special charges that the municipality imposes and collects, while in Kosovo, tariffs would not cover operational costs even if they were collected in full. In Montenegro, tariffs would only cover operational costs if they were collected fully.

Tariff levels would also depend on the size of the project. In general, the bigger the project (service population) the lower the tariff levels. See Box 13 for issues related to setting tariff levels.

The social impacts of implementing investment projects are a key aspect to take into account while formulating environmental infrastructure investment projects. It is especially relevant during the formulation of projects in the water sector, district heating, and the power sector.

Improving the quality of services for consumers (i.e. citizens), by, for example, creating a more reliable supply and reducing waste, can only happen if the industries providing these services are put back on sound financial footing. These service providers need to introduce higher end-user prices and do a better job of billing and collecting. The evidence suggests that the burden on households as a result of environmental infrastructure improvements will be significant.[6]

Affordability

Affordability is determined by the income of households, the level of consumption, tariff policy, subsidy schemes and the level of payment collection. The two most common ways to estimate affordability are the share of monthly household income that is spent on utility services and the share of utility payments in total household expenditures.

Estimating affordability based on household expenditures seems to be more accurate than the latter as the income basis does not capture all sources of household income, which is especially true for low income countries, depending on non-taxed sources of income. If this share (ratio) rises above a certain threshold, affordability is considered problematic.

The other aspect of affordability is linked to utility expenditures, which can be defined as actual payments or billed amounts. It is important to note that in the SEE countries the collection rate of bills is usually very low. Therefore the estimates of current affordability will include both actual payments (partial collection) and the billed amount (full collection).[7]

Current affordability analysis (see Table 15) shows that on average consumers in SEE must pay much more (4.86 percent) for electricity than in CEE countries (3.8 percent). In the case of heating, SEE households pay half (1.1 percent) of what is paid in CEE countries (3.7 percent). For water services, the percentage paid by SEE countries (1 percent) is also lower that in CEE (1.6 percent). Table 16 shows that there are significant differences between the sectors. In general, electricity tariffs are much closer to cost recovery levels than heating or water tariffs. Also, the collection rate for electricity tends to be higher than for other sectors. In conclusion, household expenditures on electricity are substantially higher than in other sectors.

High levels of electricity bills in South Eastern

Europe can be explained by consumption patterns. For example, in Albania and the former Yugoslav Republic of Macedonia there is a low level of connection to district heating networks, and the networks themselves function poorly. It is therefore more reliable to use electricity as a source of heating, meaning electricity expenditures are higher. In relation to water bills, electricity bills depend on metering, price and water losses. The countries of the region consume at least 20 percent more water than CEE countries, where the metering is more widespread and prices for water are higher.

There are several limitations in relation to the current affordability analysis. For one, affordability estimates are affected by the degree of non-payment; households report low expenditures on utility services because they do not pay the bills. Another factor is that estimates reflect the low levels of tariffs charged. For this reason the estimates do not show the scale of the problem, as the tariffs must be increased in all SEE countries as a result of the cost-recovery approach.

To gauge whether affordability is a problem, the data must be compared to benchmarks, of which several have been developed by international financing institutions and governments. The acceptable level of utility expenditures is considered to be around 25 percent[9] of household expenditures on electricity, district heating and water. The comparisons between the current affordability and benchmarks for three sectors considered are presented in the Figure 5. Although the graph shows that when comparing the average household expenditures on utilities with the benchmarks, affordability does not seem to be a problem, it might be a problem for low-income groups.

Table 17 shows that the poorest 10 percent of the population cannot afford these services. It must be noted that the collection rates and tariffs levels are very low and far from cost recovery for this group. The real problem regarding affordability must therefore lie elsewhere.

Electricity bills account for just over 9 percent of total household expenditures for the poorest 10 percent of the population in SEE, which is close to the benchmark of 10 percent. When the low levels of income in these countries are taken into account, it can be concluded that affordability for the poorest percentage of the population poses a challenge, even before the prices include cost recovery.

Discussing formulation of environmental infrastructure investment projects, it can be said that from one point of view it is important to calculate the current affordability of customers who will be affected by the service extension (or construction, upgrade of the infrastructure), but it is even more important to estimate future affordability of these customers as it will be affected by the increase of tariffs for cost recovery. It is important from a social standpoint to estimate what the level of social protection should be. In order to estimate future affordability, information has to be gathered on future income growth and on future demand for utility services.

The EBRD conducted scenarios on future affordability under two sensitivity analyses.[10] They assume that that full cost recovery will be achieved in 2007 (four years of adjustments starting from the available affordability data presented above) under the same constant rate. The pessimistic scenario assumes a lower level of real income growth, which results in higher affordability ratios than in the base case. The optimistic scenario assumes higher real income growth. Table 17 shows the scenario results.

According to these estimates, the poor will have trouble affording utilities unless the macroeconomic situation improves dramatically. The following lessons learned should help the future formulation

TABLE 16

Current affordability of utility services for the average household in 2003 (in percent of total household expenditures)

	ELECTRICITY	HEATING	WATER
CEE	3.8	3.7	1.6
Average SEE	4.86	1.14	1.02
ALBANIA	4.2	N/A	0.8
BOSNIA AND HERZEGOVINA	5.4	0.6	1.1
CROATIA	3.9	0.4	1.3
former Yugoslav Republic of MACEDONIA	5.3	0.1	1.2
SERBIA AND MONTENEGRO	5.5	4.6	0.7

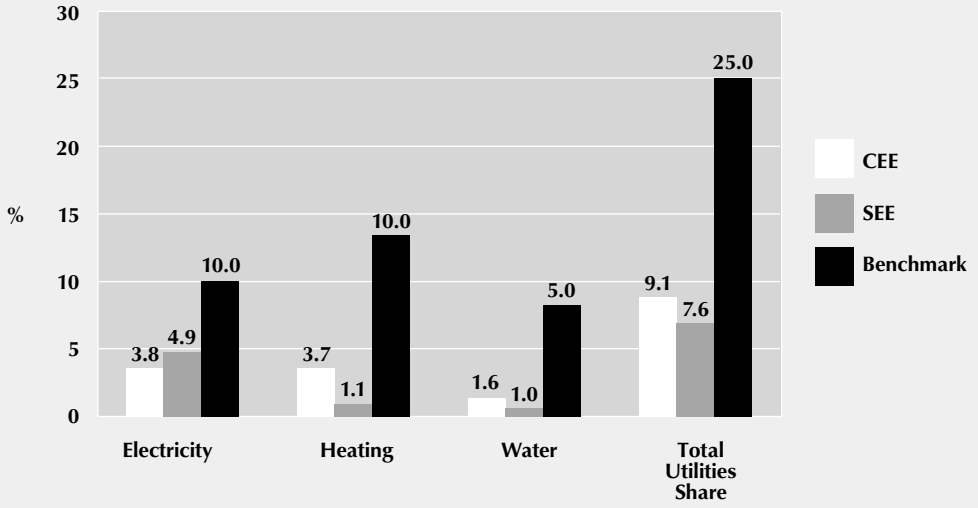
Source: EBRD 2005

Note: CEE countries include the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

N/A — no available data.

FIGURE 5

Comparison of benchmarks and current affordability ratios in two regions as a percentage of total household expenditures



Source: Authors' calculation based on EBRD 2005

of environmental investment projects in SEE.

- At present, the current affordability analysis shows that average households in SEE are able to pay their utility bills, primarily because tariffs levels are set at a very low level, far below cost recovery.
- An additional problem is related to the poor maintenance of the system and illegal usage of the service, as well as low tariff collection rates.
- The situation at present is still optimistic for the poorest members of the society, although expenditures are much closer to affordability levels.
- Considering the fact that all environmental infrastructure projects must be designed with the full cost-recovery analysis, it can be predicted that the levels of tariffs will increase faster than the income growth of the countries.
- From this perspective, it is essential to analyse the social impacts of achieving cost recovery in environmental infrastructure investment projects.

Environmental financing strategies

Environmental financing strategies can be a useful tool for putting into practice issues of cost recovery and affordability for a particular project, as well as for policy design. These strategies are used to organise information into a format that facilitates decision making in setting policies and targets, creating or strengthening institutions, or mobilising sources of financing. Environmental financing strategies are used for the following purposes:

- to assess total investment needs of alternative policy targets;
- to bring about practical implementation programmes, taking into consideration what the economy and households can afford;
- to identify investment projects and build short- to medium-term project pipelines;
- to identify the policies and measures which are necessary to ensure effective financing of the project pipelines;
- to support claims of the environmental and other ministries responsible for municipal services on the public budget; and
- to support country requests for donor and IFI financing.[11]

Lessons learned from developing environmental financing strategies in Central and Eastern Europe can be summarised as:

TABLE 17

Current affordability of utility services for the poorest 10 percent of the population in 2003 (in the percent of total household expenditures)

	ELECTRICITY	HEATING	WATER
CEE	6.5	5.7	2.3
Average SEE	9.12	2.18	1.92
ALBANIA	6	n/a	1.6
BOSNIA AND HERZEGOVINA	8.4	0.3	0.7
CROATIA	10.9	0.6	2.3
former Yugoslav Republic of MACEDONIA	13.1	n/a	2.9
SERBIA AND MONTENEGRO	7.2	10	2.1

Source: EBRD 2005

Note: CEE countries include: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia.

n/a — no available data.

TABLE 18

Affordability of all utility services, with different demand and income parameters, with cost recovery in 2007 (Percentage of total household expenditure)

	PESSIMISTIC	BASE	OPTIMISTIC
CEE	15.1	14.4	12.2
Average SEE	35.96	26.5	17.12
ALBANIA	18.7	11.2	7.1
BOSNIA AND HERZEGOVINA	28.6	16.2	12
CROATIA	21	17.8	14.8
former Yugoslav Republic of MACEDONIA	39.5	29	20.6
SERBIA AND MONTENEGRO	72	58.3	31.1
Benchmark	25	25	25

Source: EBRD 2005

Note: Full cost recovery is assumed at the cost of USD .08 per kilowatt hour; USD .04 per kilowatt hour for district heating; and USD 1.40 per cubic meter of piped water.

- If there are high operating costs for infrastructure, utilities often react by not operating the infrastructure or by operating it unevenly. These measures result in unreliable services of water and wastewater with frequent interruptions and low quality. The shortage of funds for proper maintenance (e.g. small repairs, replacement of worn-out parts, small capital repairs) result in the assets rapidly losing their economic value, falling apart and eventually being abandoned.
- Over the past decade, tariffs have not caught up with the rapid liberalisation of input prices, and have not made up for budget expenditure cuts. In many cases, tariffs do not cover the cost of operating the remaining, partly functioning infrastructure.
- There are three ways to improve the situation: cost savings through efficiency improvements; increased supply of financing; and decreased service level ambitions. Targeting the scarce funds to achieve cost savings was identified as one of the most important measures.
- In cases where there is a problem of affordability, usually it exists for a relatively small share of the population (10-20 percent), and the most affected groups are well known. Therefore, there is significant room for introducing targeted support for specific social groups.
- In the case of low collection levels of charges, strengthening payment discipline has been shown to generate substantial additional funding.
- Experience has shown that the tariff increase process is usually followed by a significant reduction in water consumption.

Proper sizing of projects

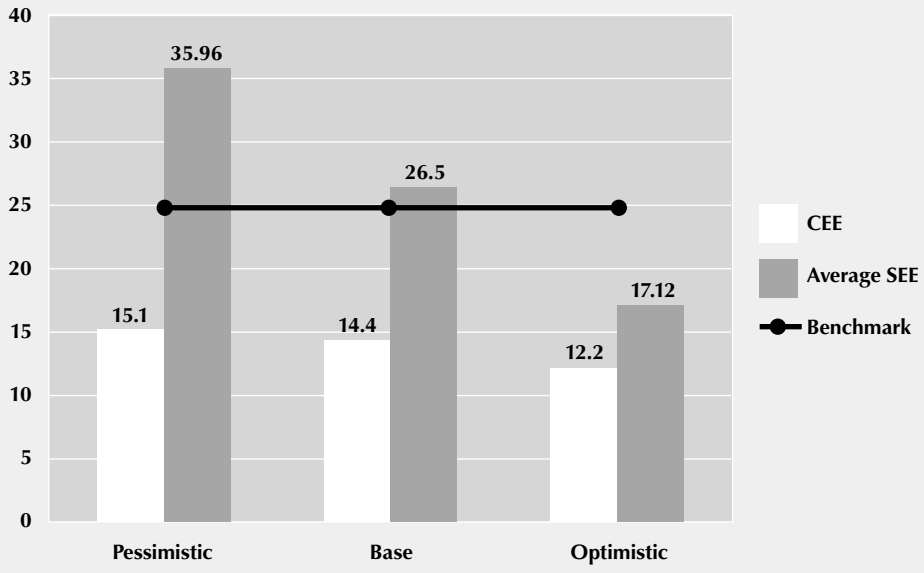
The key issues regarding the proper sizing of projects can be summarised as:

- Reliable population data availability as well as about future forecasts of population and possible migration are essential for the proper sizing of infrastructure.

- Efficiency in service usage should be ensured before committing to investment funding. For example, high water usage in many countries, if reduced (e.g. the role of public campaigns in saving water), will dramatically decrease the scale of the investment needed.
- It has to be taken into account that once the tariffs are increased, customers will be using less of the service, which might lead to the oversized infrastructure. Therefore, an impact analysis of tariff policy on usage of the service (and willingness of usage of the service) has to be conducted.
- The economies of scale of proposed solutions plays a very important role. One way to ensure the economy of scale is to create associations of municipalities, developing regional solutions. At the moment, one of the weakest points in enabling legislation in the region concerns the creation of joint service associa-

FIGURE 6

Comparison of affordability and benchmark at the levels of cost recovery in percent of total household expenditures (total utility bills)



Source: Authors' calculation based on EBRD 2005

BOX 14

Mitigating the social effects of cost recovery

The following instruments are in use to protect low-income consumers:

- **Block tariffs:** Services up to a certain threshold are provided at low or no cost. Consumption above this point is charged at full cost. Block tariffs enable all consumers to have access to the service, and it stimulates savings of service usage. Nevertheless, this system requires a well developed metering system, which is not always the case in SEE countries.
- **Assistance programmes:** Programmes are developed to transfer money to vulnerable groups of society (e.g. pensioners, those receiving social benefits) to cover the minimum level of consumption. This system requires good identification of needy beneficiaries, which might be problematic in SEE countries. These programmes also depend on funding sources available and fiscal expenditure management.

tions, joint public institutions or joint enterprises among municipalities. These joint efforts of creating associations are severely hindered by joint property ownership, and the sharing of expenses and other costs that cannot be recovered from the rest of the owners. Furthermore, in Serbia, municipal property is by definition property of the state, which seems to be a disincentive to any municipal investment, individually or even jointly (see Table 26 in Annex 2 for more details). The funding of joint efforts, allocation of benefits and costs, etc. are also made more complex by inadequate accounting and bookkeeping practices in the public sector, where overhead costs cannot be calculated, and often the "largest" contributor to the joint effort ends up in essence subsidising the smaller players. Regional experience suggests that joint service associations require specialised, complex legislation, since municipalities give up fundamental rights, such as tariff setting and property ownership, but cannot simply delegate responsibility to an entity that needs to listen to 10-15 municipal councils simultaneously. In other words, in some situations, joint efforts become ungovernable.

Location of infrastructure

When locating infrastructure, several choices can be made. Project proponents might opt for a "centralised" approach, where all elements of the infrastructure are placed in one location, or a "decentralised" approach, where elements of the infrastructure are placed in different locations. In general, there is no ready recipe for success at a project location, as the conditions for each project are different. Nevertheless, the project location might influence many other areas of municipal activity, such as economic development, biodiversity protection, and unemployment. An overview of issues to consider when choosing a project location is provided in Table 19 in the case of an infrastructure project serving a group of municipalities.

Locating infrastructure projects often encounter the not-in-my-backyard, or NIMBY, syndrome, where local residents are in general in favour of the improvements offered by the project, but turn against it when the infrastructure needed is to be constructed in their neighbourhood. BOX 16 highlights the options for overcoming the NIMBY syndrome based on practices from the new member states.

Once a well formulated project enters the project preparation stage, the proposed solution is verified and developed in detail. Box 17 presents

BOX 15

Application of FEASIBLE[12] model for developing financing strategies

FEASIBLE is a computerised decision support tool which facilitates an interactive process of matching the expenditures required to meet given targets with the available finance. The key feature of FEASIBLE is the use of generic cost functions, which allows easy estimation of the costs of alternative service and environmental targets with a limited data collection effort. FEASIBLE calculates expenditure needs under different assumptions concerning input data and parameters related to:

- objectives and targets;
- technical measures;
- macro-economic projection; and
- technical and price correction coefficients.

FAESIBLE compares the expenditure needs with the supply of finance on a year-by-year basis and computed cash flow forecast, i.e. financing deficits or surpluses, both annual and accumulated. Not only is the magnitude of total cash flow deficits/surpluses presented, the structure of the financing gaps is also shown, for example coverage of capital investment expenditure by various funding sources that can be used to finance fixed assets, operation and maintenance costs. These results help policy makers understand where the main bottlenecks are, as well as where, when and what additional policy interventions are needed to facilitate effective financing of infrastructure development programmes.

The model can be used for preparing financing strategies for water, wastewater and municipal solid waste services. FEASIBLE is freeware that can be obtained through the websites of the OECD, DEPA and COWI.

TABLE 19

Overview of issues to be analysed while choosing the project location

ISSUE	CENTRALISED APPROACH All elements of infrastructure placed in one location	DECENTRALISED APPROACH Elements of infrastructure placed in different locations
Ownership	One municipality keeps strong ownership and interest of the developed infrastructure.	All municipalities keep strong ownership of the project, as infrastructure is located in different municipalities. All municipalities have an interest that the project will be implemented well.
Biodiversity	One location has to be assessed for how it impacts biodiversity (e.g. in nature protected areas). One strategy is needed.	All sites have to be assessed and several strategies have to be developed.
Jobs	Job creation is centred in one municipality. There are higher costs associated with commuters from other municipalities.	Jobs are spread throughout different municipalities. Support is given to low-qualified workers in the region. There are low commuting costs.
Costs	Operational, management and transport costs are lower. Fewer access roads and maintenance workers are needed.	Operational and management costs are higher, and more support infrastructure is needed. There are higher costs of transport between elements of the infrastructure, and more maintenance staff is needed.
Land availability	Land is expensive in big cities, so in these cases, placing all components in one location might be easier.	If land is available or if there are problems with land acquisition and costs, it might be better to move to different locations.
Project management	Management of a project is simpler and more transparent.	More complicated management and decision-making structures are needed.

BOX 16

Overcoming the NIMBY syndrome

- Explain the possible locations for the infrastructure, and give arguments why the proposed location is best. Help people see the justification for it.
- Explain what the costs will be for people (tariffs, etc), if the infrastructure is located somewhere else.
- Give access to all information, even to mistakes. It is important to show that your project is fully transparent.
- If you plan to organise any international events (sport championships, etc.), it might stimulate the local community to solve the environmental problem and find the location for the infrastructure project.
- Always listen to why people are against the proposed solution. Never underestimate the local knowledge.
- Involve a PR company to assist you with proper tools of communication with the local communities.
- Involve local NGOs; they can work with you to propose a better solution.
- Always inform people about developments in the project. Avoid surprising the public by informing that, for example, there will be a period of increased traffic or noise due to construction.
- Use conclusions of the EIA to show the project impact and what needs to be done to minimise the impact.

an overview of good practices in project preparation in the case of public water utilities.

Identification of sources of finance

Once the project is formulated, it is important to identify the sources of possible financing. The most relevant external sources of financing for the SEE region include:

- national government sources;
- grants (from the EC and bilateral donors);
- loans (from commercial banks and international financing institutions); and
- the private sector.

Chapter 6 presents the grant assistance that is currently available for the region in much greater detail.

Developing bankable projects

A discussion of bankable projects should start with situations in which borrowing is seen as a good choice for municipal infrastructure development.

If the choice is made to finance a project from the current budget and local taxes, the investment project will depend on revenues gathered, while in the case of a loan the project proponent has

BOX 17

Case study of good practice in project preparation: public water utilities

Key features of good project preparation for the reform and financing of water utilities are:

- **An assessment of the financial performance** of the utility should include its financial standing, which is important for presenting an accurate picture of its revenues, liabilities, costs and financial efficiency.
- **Institutional and legal framework:**
  - The autonomy and responsibilities of the utilities must be assessed in order to establish the utility's level of financial and managerial autonomy for public service provision. In transition economies, the institutional structure is not always clear and is subject to frequent conflicts, which dissuade external financers.
  - Specific legal issues affecting utility operations should be assessed during project preparation and mitigation.
- **Operational efficiency** should be sought to achieve cost savings. By identifying and implementing cost savings during project preparation, the utility can improve its financial standing.
- **Socio-economic/affordability analysis** should be carried out because tariffs and consumer affordability are important and can be reached through a socio-economic affordability study that assesses the need for tariff restructuring and the scope for tariff increases in relationship to fair market rates and customer affordability.
- **A technical evaluation** of current utility service provision and development needs will assist in identifying both the short-term as well as the medium- to long-term capital investment needs.
- **A long-term strategic plan** is necessary to provide a framework within which the utility and the local or regional government can agree on. This plan should identify the longer-term service improvements and investment needs.
- **A short-term investment programme** should address the utility's specific short-term priority capital investment needs that were identified during the technical evaluation, move towards the development goal identified in the long-term strategic plan and be affordable.
- **Project financial analysis** should show that the utility can afford both to finance its operations, maintenance costs and the short-term investment programme.
- **Project procurement and implementation** should take into account local construction seasons, permitting and approval requirements, and outline the organisational structure for project implementation.
- **Project environmental assessment**: All environmental impacts of the project should be assessed and an environmental action plan developed according to the minimum standards acceptable to international institutions for financing.
- **Utility preparation** is essential in order to implement institutional reforms, as well as the financial and operational performance improvement measures.
- **Preparations for further technical assistance** need terms of reference to be developed as a component of the initial project preparation.

Source: DABLAS Task Force 2005

immediate access to capital, and the loan payback period is spread over many years. Having a project financed by a loan, the loan payback cost is included in charges. Therefore, the real customers of the service contribute to paying for the service. In the case of current budget finance, customers who have financed the projects (i.e. local taxes) might move or new customers move in who will not be participating in the cost sharing. It can be concluded that from a time standpoint loan financing provides more optimal allocation of resources.

It is believed that through developing environmental infrastructure, the area is becoming more attractive for living and investing. If the project is being developed for many years (current budget financing), it could be difficult to attract investors for developing the municipality or region, while short-term development of infrastructure (loan) makes the area more attractive. Moreover, the price of renting land for infrastructure might increase, as the infrastructure is already in place. Therefore, it could be the case that the costs of benefits of current budget financing will be higher than the costs of borrowing.

The costs of maintaining the infrastructure which has to be upgraded are usually very high. In the case of quick access to capital, upgrades can be implemented quicker and, in effect, the costs of operation and maintenance can be reduced.

Where legally allowed, borrowing capacity is not used fully anywhere in CEE or SEE. Few loans from international financial institutions and rare examples of domestic borrowing in the region (Croatia, Serbia) are in place. Across Central Europe, including SEE, borrowing limits are not reached or exceeded according to the literature and practical experience.[13] In other words, borrowing limits per se are not too strict. What is rather the problem is that the funds from local budgets and projects that could be available for debt service are not large enough in comparison to the size of debt service obligations under current loan lifespans and interest rates. Despite the appearance of sophisticated debt laws and other borrowing frameworks, and the potential of the passage of more debt laws in the region, municipal borrowing for environmental purposes from commercial banks on commercial terms has been rare. As Box 18 indicates, most borrowing (except in Croatia and Serbia) has been from IFIs and other donors such as Kreditanstalt fur Wiederaufbau (KfW). The dearth of actual municipal borrowing indicates that despite overwhelming needs in the water, wastewater and solid waste sectors, and clear municipal responsibility to provide these services, the incentives and sanctions have not been sufficient to start a borrowing and construction boom due to weak financial capacity at the municipal level, as well as other priorities that seem more urgent and expedient.

In a sense, borrowing and debt are considered to be "failures" in management and ability, so there is deep psychological resistance to borrowing and spreading costs and benefits over several generations. Local councils do not understand what it means to borrow, nor how to communicate with banks and other lenders. This is quite evident based upon the experiences of donor-supported municipal technical assistance projects such as GAP in Bosnia-Herzegovina, SLGRP in Serbia (but not in Montenegro, where a separate programme was funded by USAID) and similar efforts in the former Yugoslav Republic of Macedonia. Regional experience in both SEE and CEE suggests that municipal operational surpluses are rare, and, if they do exist, are used to fund more immediate projects and not debt service. Rather than producing operational surpluses, municipalities often operate with hidden deficits and unpaid bills.

Overview of the fiscal space in the SEE

In cases where borrowing is a desirable solution, the fiscal space for the infrastructure borrowing in SEE must be assessed. Although a fiscal space is an important factor, the real challenge is to prepare a well developed and bankable project. Recent analyses of the World Bank[14] bring interesting findings to the existing situation on fiscal space.

The countries in SEE are on the path to fiscal consolidation, which is greatly needed because considerable expenses are arising from the prospect of EU accession. In most of the countries, debt has been reduced through debt restructuring and relief, real exchange rate appreciation and through strong policy efforts. In Serbia and Montenegro, in particular, the Paris and London Club creditors cancelled a considerable amount of debt.

Nevertheless, debt levels remain high. Key vulnerabilities, such as high or very high debt to GDP ratios (except in the former Yugoslav Republic of Macedonia), current account deficits and external financing needs, government expenditures relative to GDP (except in Albania), and external debt to GDP (in Serbia and Montenegro), hinder macroeconomic stabilisation in SEE countries. Therefore, structural policy reforms and fiscal consolidation should continue to overcome macroeconomic vulnerabilities.

The need for governmental expenditures is increasing due to the prospective pre-accession costs and at the same time external financing needs remain high. Under these conditions, the available fiscal space that allows new infrastructure borrowing in SEE countries is shrinking. However, significant borrowing from multilateral and bilateral sources is anticipated . Private capital involvement in infrastructure financing can ease the fiscal burden, but successful private sector participation requires a matured project within a solid sectoral investment framework.

The key message is that each country should consider its fiscal space before entering into any new borrowing. This advice also applies to infrastructure borrowing for capital expenditure. The notion of "fiscal space" refers to the amount of budgetary room that a government has to provide for a desired purpose without considering the sustainability of its financial position.

As a result, new infrastructure investments should undergo a rigorous evaluation of costs and benefits, including not only capital costs but also operation and maintenance costs. In some cases, upgrade and maintenance spending on existing infrastructure is a more viable alternative to new investments concerning the marginal rates of return. In any case, governmental spending on investments should be considered within the projected medium-term macroeconomic framework. If any overspending related to the planned baseline scenario happens, it should be compensated by a reduction of less productive planned expenditures.

In the case of Albania, Bosnia and Herzegovina, Croatia and Serbia and Montenegro, it is suggested that new spending proposals are considered within the projected macroeconomic frameworks. If the new spending is projected to have higher rates of return than ongoing or planned programmes, then it should replace such expenditures. In the former Yugoslav Republic of Macedonia, where significant arrears have been accumulated, a small increase in borrowing and debt can be suitable, depending on the quality and impact of the proposed capital expenditure.

Borrowing by municipalities: regulatory issues

The regulation types in force in relation to municipal borrowing can be divided into three groups (see Annex 2, Table 27). Municipal borrowing for capital projects is regulated in detail and comprehensively in Serbia and Montenegro and in Croatia. Regulations are less comprehensive in the former Yugoslav Republic of Macedonia and Albania. Survey results from Albania indicate that de facto borrowing is permitted, but regulations are not clear or not yet in place regarding most aspects of municipal borrowing. Finally, Kosovo (territory under interim UN administration) and Bosnia and Herzegovina offer contradictory results. In the former, due to the overwhelming powers of the KTA, municipal borrowing cannot exist. In Bosnia and Herzegovina, there is an interregnum between an essential IMF ban on borrowing below the level of the state, and the passage of proposed borrowing laws for the state, and both entities (i.e. the Federation of Bosnia and Herzegovina, and Republika Srpska). With passage of these laws, Bosnia and Herzegovina will have comprehensive municipal debt laws similar to that of Croatia, the Republic of Serbia and others in the region.

Municipalities may borrow for capital improvement purposes in most entities, but in several of them approval and review of their loan applications are subject to interference by various ministries, and in some cases, government decision. The debt service limit varies between 5 and 20 percent of revenues, although the definition of what revenue is available — and what that revenue means within the context of each political system — varies significantly, so direct comparison of these limits should be done with great caution.

Borrowing in foreign currencies, or from foreign banks, seems to draw more oversight from higher level organs such as finance ministries. Communal enterprises, under the direct control of municipalities through ownership or under their influence as price-setters, may in most entities borrow directly for capital projects. Sovereign guarantees are rare and mostly used to support borrowing from international financial institutions that require such intervention. What is unclear, in Serbia, for example, is whether review and approval of municipal borrowing implies that the state will support debt repayment in the case of default. The issue of whether higher level reviews and approvals imply implicit guarantees must be made clearer, as should procedures (besides legal actions) that are to be followed in the case of actual default.

Croatia separates the regulation of borrowing by legal units falling under the utility law from municipal regulation, essentially removing elements of municipal risk, while subjecting utilities to tighter oversight by sectoral regulators.

BOX 18

SEE entities according to types of regulation in force

GROUP	DESCRIPTION
Unregulated/ disallowed by precedent	If the legal framework does not explicitly allow municipal borrowing, or does not lay out a procedure for it, then by convention such activity does not take place because it is assumed to be illegal. Albania and Kosovo (territory under interim UN administration) fall into this category.
Regulated but not used	Some countries have framework laws, references to municipal borrowing in major legislation, such as budget laws, municipal finance laws and other such enabling legislation. Despite relatively clear guidelines, these procedures and concepts are too new to be put into practice, and therefore municipal borrowing has not really begun in the Republic of Montenegro and in the former Yugoslav Republic of Macedonia.
Regulated and used	Very good legal frameworks with clear limits, purposes, available funds, ministry review and approval exist in Croatia and the Republic of Serbia. For this reason, their framework laws were developed by the same US Treasury technical assistance programme. Domestic commercial banks are already active in municipal lending. In addition, national on-lending facilities[15] exist for handling donor funds, and the funds made available by IFIs as well. However, the actual volume and debt service-based limits are very low compared to total project costs, and environmental goals do not necessarily enjoy priority for the scarce available credit line. In Croatia, the Ministry of Finance divides an overall national quota of total municipal debt, as it reviews and approves municipal borrowing. In Serbia, the limited ability to generate operational surpluses impinges on the volume of municipal borrowing that takes place.

Borrowing by municipalities: open regulatory issues

When a municipality defaults

A problem in most SEE and CEE countries is the issue of municipal default, that is, an inability or unwillingness to pay a debt or other obligation similar to debt, such as a vendor who has advanced work on a delayed payment basis. It is important to emphasise that default refers to those cases where a municipality has borrowed or assumed another long-term obligation, and has missed a payment deadline by a certain number of days (this varies by country and legal system, but it is usually 30-90 days). Other invoices that are unpaid at the end of the year, for example, are not yet considered debt by this definition, and the "unpaid bills" problem should be discussed separately, as it relates to operational concerns and not investments. In CEE, only Hungary and Latvia have initiated legislation to address the question of municipal debt adjustment and reorganisation in "workout" or bankruptcy procedures.

Debt-induced temporary insolvency occurs in those systems of sub-national finance where the state allows borrowing to take place to fund municipal tasks that otherwise would not be performed by another level of government. Debt-induced insolvency occurs when a system of preventive mechanisms is either not in place, or is not monitored closely by the state or by an independent system of controls at the local government level. In states where infrastructure responsibilities are allocated to regional self-governments, or where specialised institutions provide financing, or where the state itself guarantees the debt of local government, municipal insolvency caused by debt payments is rare or non-existent. Box 19 describes the experiencees of some European countries with debt-induced insolvency.

The question of what happens if a municipality defaults on a debt is important not only for the future of that municipality, but also from the perspective of the national government and the banking sector. The risks and consequences of "bad" borrowing by municipalities are important considerations for policymakers in the executive and legislative branches. Furthermore, the effect of a municipal default has international implications as well, and could cause a wave of domestic lobbying that forces the policymakers to respond. While designing a response to the risks outlined below is beyond the scope of this chapter, the importance of environmental projects reinforces the need to find a way for municipalities to borrow in a rational way, while protecting public assets, public services, and the health of the

BOX 19

Experiences of European countries with debt-induced insolvency

Debt-induced insolvency can take place in those systems where local governments are small, their service areas are consequently small, and their fiscal and performance responsibilities high. This is the case in Hungary, where towns from the smallest villages to the capital have essentially the same responsibilities for providing environmental infrastructure. Since the grant system does not provide 100 percent coverage of costs, and the EU requires co-financing, the need to borrow is evident. In local government systems with more generous grant programmes, larger service areas, and higher level responsibility for environmental infrastructure, sub-national borrowing is either not allowed or does not need to take place.

Municipal systems in the OECD states have instituted a variety of mechanisms to prohibit, control and prevent municipal defaults on both domestic and foreign debt. IMF conditions, and the need to apply consolidated public accounting in the EU candidate countries (e.g. Bulgaria, Romania), have also convinced national regulators to treat municipal debt as a part of overall public debt, even in situations where the state explicitly does not guarantee sub-sovereign debt. Overall, municipal insolvency caused by missed debt payments or excessive capital spending is not a problem in most OECD countries. To the best of our knowledge, only Hungary and Latvia have prepared a municipal debt adjustment (i.e. bankruptcy) law that is carried out through the court system, since the fiscal transfer systems are able to generate revenues adequate to support mandatory municipal functions, and to finance debt service. The Polish and Czech tax sharing and tax assignment systems generate gains for the municipal sector as their economies grow automatically without having to adjust the formulae annually. Conversely, municipalities are strictly regulated as in Austria, Germany, France and Britain, where regional governments assume roles that are taken by the lowest level in the three Central European states. Switzerland, Latvia and the German federal states have intervention mechanisms carried out by the executive branch, i.e. by a ministry or level of executive power one level above that of the affected municipality. These interventions can be initiated by the next level of government and in no way encourage a voluntary agreement between creditors and debtor. Instead, these procedures focus on creating emergency budgets and restoring the fiscal balance at the local level. The question of accumulated debt is not significant given heavy-handed regulation by the higher levels prior to borrowing in those countries.

But Hungary is an extreme case. In other former socialist states (e.g. Croatia, the Republic of Serbia, and Slovenia) municipal borrowing is strictly regulated, and important projects funded by international lenders all require a sovereign guarantee. What is common to all countries in which the local governments sometimes face operational deficits is that national government schemes distinguish between deficits caused by excessive borrowing and between the inabilities to fund current operations. A less clear situation exists when accumulated unpaid bills are converted to debt through contractual mechanisms, or by court decisions. There is a common dilemma of financial assistance by the state to local authorities: it is individually rational for a single local authority to maximise the assistance it receives, while collectively too much assistance would undermine local autonomy. From the perspective of the state or a higher level of government, the problem is to distinguish between legitimate and illegitimate cases.

In some cases there can be financial penalties on elected officials, such as mayors, or the beneficiary might need to repay the grant funding.

banking system. Box 20 summarises the major risks associated with municipal defaults and financial stress.

Loan application process and bank relations

If a municipality has a good project that is of interest to a lender, bank procedures are in place to handle municipalities as clients. Nevertheless, in countries that have limited experience working with banks, there are obstacles to approaching them (see Box 21). At that point in time, banks have a financial interest in helping their clients to process paperwork and present financial information in such a manner that credit committees and bank management understand them.

Agencies outside of municipalities, such as higher levels of government, may slow down the loan application process. In cases of co-funding, municipalities may have difficulties in coming up with cash deposits or other pledges of assets. Approvals needed from higher levels of government are also subject to political considerations, although empirical evidence does not make specific reference to this. One may reasonably suspect that if committees formed by higher levels of government review and ultimately approve municipal borrowing, regardless of the state guarantee issue, there is a good chance that in some cases political considerations may influence the speed and fate of such approvals.

BOX 20

Risks associated with municipal defaults and financial stress

Borrower/Local Government
- Inability to make timely payment, penalties and sanctions imposed
- Strain on operational budget
- Halted or partially finished investment projects don't pay returns
- Assets and collateral lost
- Disruption of essential public services
- Risk of losing next election
- Sanctions from national government (e.g. eligibility for other grants, criminal prosecution)
- Repayment of other debts endangered
- Blacklisting by financial institutions
- Ultimate dissolution of local government, forced merger and state supervision

National Government
- Guarantees called, stress on national budget
- International obligations on gross state debt (Maastricht, IMF, etc.)
- Bad precedents set in case of repeated bailouts
- Lose value of grants and investments already made if projects are halted midstream
- Service provision obligation may revert to national level (e.g. safe drinking water)
- "Bad publicity" for entire local government system
- Need for policy reform and incipient debate

Lender, vendor, bondholder
- Balance sheet losses (value of loans made or bonds held, or accounts receivable written off)
- Provisioning and regulatory problems
- Cost of managing bad assets
- Negative publicity for banks "pressuring" municipalities
- Risk of losing entire asset/loan in a workout agreement or liquidation procedure
- Lost future business with municipal sector
- Cost of manoeuvring to shift cost to taxpayer (bank bailouts, selling off loans)

Source: Jokay-Szepesi-Szmetana (1999) study for World Bank. Later published in 2004 in *Hungary: A Decade of Reform*.

Projects do have liquidity problems caused by loan tranches made available to borrowing municipalities more slowly than construction could actually progress. This is particularly a problem with multiple donors (as in a bank loan combined with an EU grant, or national government grants), who are not aware of the delays in construction and the initiation of service that they may cause if the municipalities lack management skills. The municipality may pay excess availability fees to the bank while it is waiting for funding from another donor in order to achieve a milestone needed to draw down the next loan tranche.

Project proponents might need to demonstrate that they have been coordinating the project development with other co-funding donors. In some cases official statements are needed.

General observations

Multiyear budgeting is not required in most of SEE, and capital budgets are not required to extend beyond one year. However, multiyear capital budgeting will soon be required, for example, in the former Yugoslav Republic of Macedonia and Bosnia and Herzegovina, and this is a positive development.[16] Croatia has three-year budget planning.

Municipalities do not have the skills to manage many different donors with divergent payout schedules, and donors do not take the policies of other donors into account. Grant funds are stretched over several years in a timeline unrelated to the physical progress of construction, i.e. paid out slowly over several budget years, so projects are not built as quickly as possible and do not start producing benefits and revenues when they could. In Hungary, for example, national grant funds pay up to 70 percent of wastewater projects, but these funds are paid out over three years only for budgetary reasons. Thus construction is stretched out over three years, and bank loans cannot be drawn down quickly, only over a schedule determined by a law that does not take the particulars of the project into account.

BOX 21

Initial obstacles when approaching financing institutions

Once a decision is made to take a loan there are often initial barriers to approaching financing institutions. This is especially true for the countries that lack experience in working with financing institutions.

At the early stage of project development, there are at least five major barriers to having constructive dialogue with a bank. These are:

- the attitude of project proponent;
- familiarity with the financing institution;
- financial information about the project;
- risk management; and
- institutional and organisational issues.

Attitude of project proponents

Institutions willing to provide financing will try to assess the ownership feeling of the project proponent towards the project. They will assess how strongly the project proponent is interested in the project being brought to a successful conclusion.

Strong ownership feelings can be proved when:

- The project is part of existing plans, programmes or strategies.
- Fundraising is not an ultimate goal, but part of the process.
- The project proponent is responsible for all parts of the project and considers himself/herself as a supervisor of all the institutions involved.

There are often bad practices in relation to the working culture of project proponents. These are, to name a few, keeping secrets, thinking that it is better that the financing institution does not know about some aspects of the project which might go wrong, or the culture of pleasing the financing institution and agreeing on everything although it might not be true. These practices can significantly hinder successful development of the project. Instead, a pro-active approach of the project proponent is advisable, for example in relation to identifying all risks associated with project development.

Knowing financing institution

The lack of knowledge about the financing institution often results in misunderstandings about the principles of cooperation. Issues usually unknown by project proponents include: eligibility rules, priorities of the financing institution(s), terms of lending, types of instruments offered, means of communication, project submission rules and procurement rules.

Financial information about the project

Financing institutions require detailed financial information from the project proponent. When co-financing is required, it is important to have a plan of potential sources of co-financing before approaching a financial institution; co-financing from own sources is regarded as a very good sign of ownership over the project. When guarantees are needed, it is important to analyse the process in the country in relation to obtaining guarantees and how long this might take. The special focus of financing institutions is always placed on checking the project proponent's ability to repay the loan fully and on time. Often, proponents are not familiar with methods of calculating, analysing and presenting properly information to financing institutions. In order to start the dialogue about financial information, it is useful to gather the following information for the financing institution:

- financial indicators of the utility to show that there is a sufficient revenue base to repay the loan;
- tariff policy and planned changes in tariffs; and
- affordability of households to pay current tariffs.

Risk Management

Identifying all possible risks and ways to mitigate them at early stages of project development is a challenge for project proponents. The following groups of risks should be analysed:

- project costs: what kind of deviations in project costs can be expected, which new taxes, charges, duties levied on goods might influence costs estimates;
- local approvals: what local approvals are needed and how long it takes to receive them;
- contingency: how additional project costs that might occur can be covered;
- timescale: how realistic is the time planning, which phases of the project might take more time;
- technologies applied: how new is the chosen technology; and has it been implemented in the country;
- political stability: to what extent might political changes affect the project implementation; which phases might be affected; and
- legislative risks (environmental, organisational, financial, procurement, etc.).

BOX 21

Initial obstacles when approaching financing institutions (continued)

Institutional and organisational issues

Institutional and organisational issues are also important in relation to the early stages of project development. Identification and involvement of all key stakeholders might result in better understanding of the project concept and mitigate future opposition to the project location.

Having the project well anchored in existing strategies and plans receives a higher degree of priority on a regional and /or national level. Designing and distributing responsibilities on financial, contractual and management issues results in better involvement of project staff, and more inputs can be expected to develop a well designed project.

Source: Based on PPC materials. See list of references.

Not all commercial banks are necessarily interested in sub-sovereign lending unless it is guaranteed by the state and do not see a market in municipal lending, except in Croatia and the Republic of Serbia. In Bosnia and Herzegovina, municipal lending takes place in Republika Srpska subject to MoF approval, while in the Federation, all borrowing by the sub-entity level is banned by the 2005 Budget Execution Law. Despite this ban, banks and multilateral lenders such as the EBRD and KfW are eagerly awaiting the regulatory environment to change.[17]

Besides regulatory obstacles, some local commercial banks in the surveyed entities cannot assess the full risks of financing environmental projects and are very confused about the permitting process and technical issues, and therefore seek guarantees or liens on property, rather than assisting their clients in setting up solid financial arrangements. The IFIs, on the other hand, invest significant amounts in technical assistance to their potential clients, but have thresholds that are rather high compared to project size (EUR 5 million in the case of the EBRD).

Setting tariffs is a technical skill missing in most SEE municipalities, and applying complex national guidelines while being lobbied by the communal service companies is not an enviable position for the mayor and council members. The official chart of accounts and the cash-based tradition of bookkeeping do not capture the concept of depreciation, nor can it calculate overhead costs. From this perspective, even with the best of intentions, the accounting, budgeting and bookkeeping systems in place in the public sector are far behind the international accounting standards being adopted in the commercial sector in these entities, and municipal leaders are therefore handicapped in coming up with "fair" prices that cover all reasonable costs, yet do not overburden the population, public and commercial users of the infrastructure.

Full cost-recovery tariffs need to be developed in relation to income levels, and collection levels expected for that tariff level. This means that tariffs should not only be set according to expected costs, but should be "discounted" by the expected collection level. The level of collection is influenced by the affordability of fees charged for water, wastewater and solid waste services. To overcome this obstacle, it is suggested that the nominal tariff level should be supplemented with a tariff yield calculation that takes into account the expected collection level. In the calculation of unit costs, the income projected according to this tariff yield calculation should be considered. It is advisable to improve the effectiveness of the collection system, as this may yield higher revenues even with lower rates.

Setting the right level of tariffs is a challenging task. The nominal tariff and the tariff yield per unit of output — which takes leakage into account — should be used in cost-recovery calculations. Both of these indicators need to be considered in relation to household incomes. This type of calculation may reduce the temptation for maximalist environmental standards that are not met because systems are unaffordable, and may lead to thinking towards "appropriate" technologies that are also affordable. Tariffs set to optimise collection rates and cost coverage may signal creditworthiness and, over the long run, will benefit the project sponsor. Regulators should be pro-active in assisting the municipal level in setting fair tariffs, rather than acting as authorities passing judgment over difficult decisions.

An important hindrance to investment, caused in part by national rate guidelines, is that if they are not detailed enough, regional differences in

construction and operational costs, as well as localised and other technical differences that add or subtract to costs (capital and operational), may not necessarily show up in the price-setting methodology. There may also be disagreements as to the acceptable level of "profit" in the case of a private operator, or what expenses may be a part of the tariff. On the other hand, guidelines could be so complicated that the political bodies assigned to implement them may not understand the formulae, and in that case, guidelines are merely academic unless an outside agency reviews the pricing decision and has sufficient information on the basis of the costs.

Local self-governed units have an obligation to provide public services and are therefore under pressure to develop and maintain public utility infrastructure. This task brings up the need for municipalities to prepare investment projects and to actively search for possible financiers. Considerable sources of funds for these sorts of projects are the loans offered by IFIs and commercial banks. Thus, local self-governments need to consider the option of borrowing loans and developing skills and capacities to be able to prepare bankable projects. Having overviewed the issues related to the development of bankable infrastructure projects at the local level, some conclusions can be drawn.

An important issue to consider when entering into borrowing is the conditions and sanctions upon non-payment of debt. This issue is covered in contracts, but enforcing contract clauses through the courts takes time, and a municipality's public health, safety, and other functions must not be endangered. It is vital to clarify in advance whether approval of a loan by a ministry implies that:

- the ministry is guaranteeing the loan;
- it will intervene to help pay the loan; or
- it will intercept transfers to the municipality and pay the lender directly, or other such action.

To solve this issue, it is recommended that an explicit policy be developed that removes the uncertainties. It can be stipulated in a law or regulation. This default intervention or debt adjustment regulation is needed to provide protection to lenders, spread risk fairly, and guarantee that vital public services will not be endangered. Practical examples in Europe could be provided by Hungary and Latvia, which have such legislation, with Hungary using the court system and Latvia an administrative procedure to deal with defaults on municipal debt.

Endnotes

1 Regional Balkans Infrastructure Study-Electricity (REBIS) and Generation Investment Study (GIS), prepared for European Commission, Contract No. CARDS 52276.

2 Capital Improvement Planning in Municipalities. May 2005. Development Alternatives, Inc and IGE Consulting <www.ige.hu>.

3 Ibid (82).

4 See: <www.rec.org/REC/Publications/LEAP_Guide/default.html>.

5 Open Society Institute (2003).

6 EBRD 2005.

7 EBRD 2005.

8 EBRD 2005.

9 EBRD 2005.

10 EBRD 2005.

11 Based on OECD 2003.

12 OECD 2003.

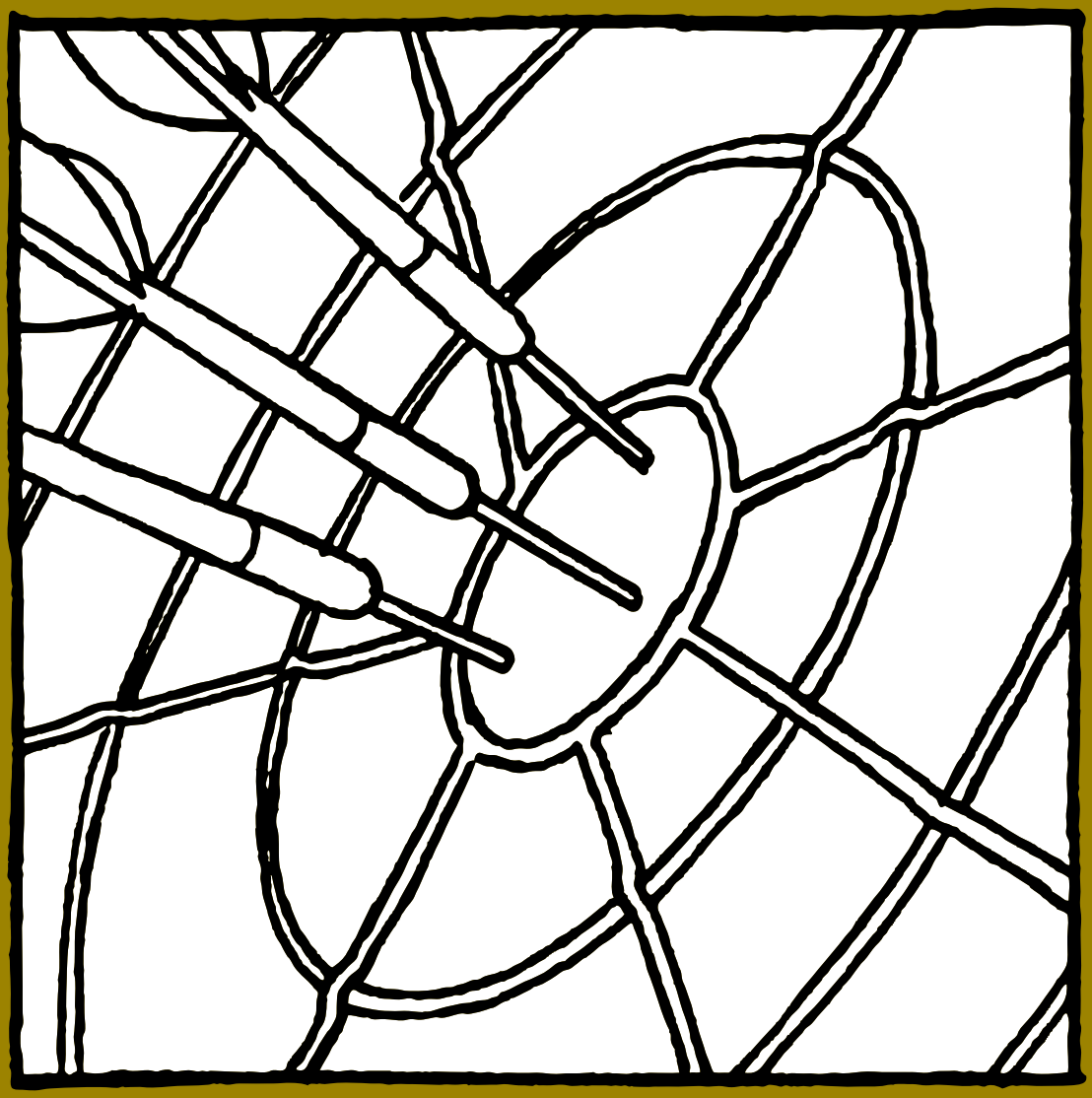
13 See, for example, Pawel Swianiewicz, ed., *Local Government Borrowing: Risks and Rewards,* published by LGI/OSI, Budapest, 2004, available at <http://lig.osi.hu>.

14 Fiscal space for infrastructure borrowing in South Eastern Europe: A suggested approach, informal note prepared by the World bank for Official use only, September 19, 2005.

15 This means that a state organ, state-owned bank, or other commercial bank receives funds from a donor or IFI, and then lends it on to its clients. That is, the source of funds comes from abroad, the state guarantees repayment to the donor, and a domestic agency manages the funds and maintains contact with the ultimate borrowers.

16 Information from projects active in both countries.

17 Information from the Governance Accountability Project (GAP) in Bosnia-Herzegovina supported by USAID and SIDA.



Chapter 5
Response to the Challenge
Lists of Priority Projects

Chapter 5:
Response to the Challenge:
Lists of Priority Projects

Developing the lists of projects

Building lists of projects that present a harmonised approach towards investment planning is an important task for the SEE countries. Lack of such an approach was one of the key barriers keeping the donor community from delivering assistance that targeted the real environmental priorities, and not randomly proposed project ideas. The existence of such a harmonised approach gives the SEE countries guidelines on developing national lists of projects for compliance with the key investment heavy directives.

Building lists of projects and efficiently managing them so that priority projects on the list can receive financing is a complicated process requiring a great deal of skill and expertise among the national authorities.

This exercise of developing a regional list of environmental priority projects (the PEIP list) is an important step towards starting this process. The PEIP list of priority environmental infrastructure investment projects is a response of the SEE countries to the need to comply with the EU key investment heavy directives. The role of the PEIP list of projects is also to stimulate the process of implementing more infrastructure projects in the region. A practical result of the project list is that priority project concepts could be shown to the donor community. The process — also launched and implemented by the PEIP with active participation from the SEE stakeholders — allowed for the transfer of expertise on developing and managing lists of projects for compliance.

SEE officials from the ministries of environment were actively involved in all stages of the process: commenting on the proposed methodology for creating a list, deciding upon the system of criteria to be used for prioritisation, deciding upon the scope of the list and other activities. It was followed by official approval of the prioritisation results as well as of the projects to be presented on the list.

Active involvement of the SEE officials and their approval of the final results show their commitment to the process. At present the PEIP list of projects is the only existing list in the region which covers all SEE countries and the three sectors of air, waste and water. It must be noted that the list presented is a "living document," which means that it presents the status of the projects as of November 2005. It should not be treated as a final list but as a selection of projects based on the available information at the moment in the region.

The list contains project ideas which:

- have a regional impact on the environment in SEE;
- are directly linked to the implementation of EU environmental acquis; and
- are mature enough (i.e. enough information is available about the project) to be assessed for bankability and/or grant assistance.

The PEIP list presents a regional overview of investment needs with draft cost estimates, based on available documentation provided by the SEE countries. Projects on the lists were proposed by the SEE ministries of environment and information about the projects was approved by them. Projects were first identified inside the countries and information was gathered on the project identification forms (PIFs). After initial screening for eligibility, the projects were added to the list and the prioritisation was conducted to identify high priority projects. For details of the approach, see Chapter 1.

The list was developed for the first time in 2003 and updated in 2005. The 2003 list[1] contained 102 investment projects proposals, 77 percent of which were rated as "high priority" projects. To date, 14 projects from the list have been financed, representing 17 percent of the high priority projects from the original list.

Results of the update

In 2005 the list of priority projects was updated. The updated list contains 116 investment project ideas, which are presented in detail on the project identification forms.[2] Project identification forms are not part of this publication, due to their size, but can be easily accessed on the REC website on the following address: <www.rec.org/rec/programs/rerep/peip>. Figure 7 presents an overview of the projects submitted by country in different sectors.

The highest number of projects on the list is from Croatia (27), followed by Albania (21). The Republic of Serbia and the former Yugoslav Republic of Macedonia submitted 19 and 18 projects, respectively. Kosovo (territory under UN interim administration) submitted 14 projects, while the Republic of Montenegro submitted nine, and Bosnia and Herzegovina eight.

In total there are 55 projects under the water sector, 47 projects in the waste sector and 14 for the air sector. It can be seen that different countries have different approaches towards sectors. On the lists of Albania, Croatia and Republic of Serbia waste sector projects were predominant, while on the lists of the former Yugoslav Republic of Macedonia, Kosovo and Bosnia and Herzegovina water sector projects received priority.

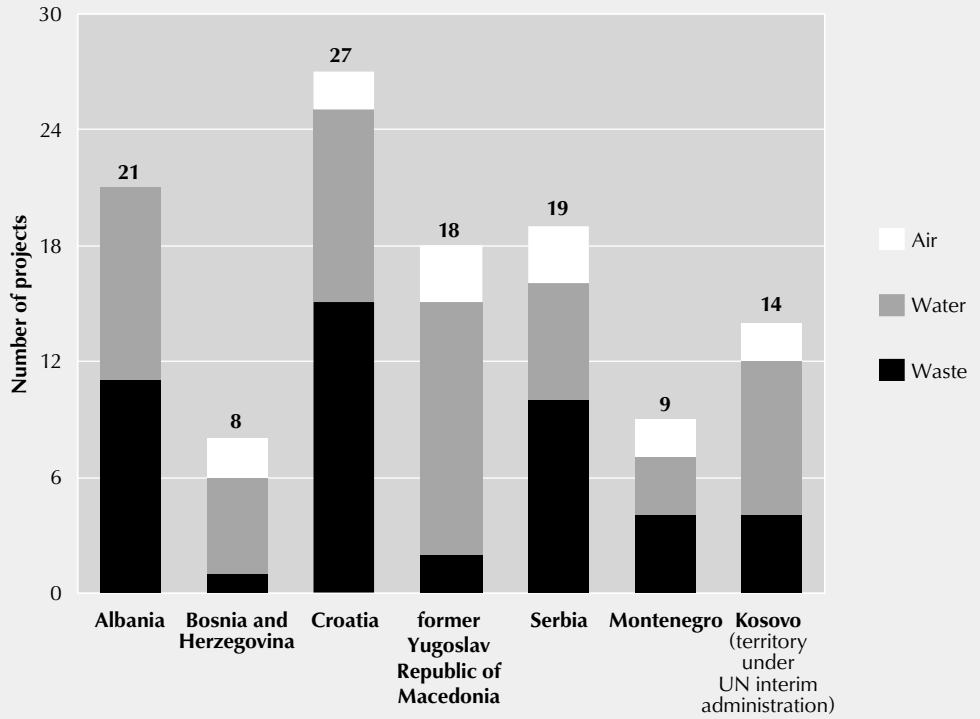
Geographical breakdown

Albania

On the Albanian list there are 10 projects from the water sector and 11 from the waste sector. Water sector projects mainly target construction of sewage systems and wastewater treatment plants of the coastal towns, for example in Durres, Fier and Saranda. Also the construction of a sewage treatment plant for the capital city of Tirana is foreseen. For a few projects, feasibility studies are

FIGURE 7

Results of updated list of priority projects



under development to be ready by the end of 2005. Waste sector projects focus mainly on constructing sanitary landfill sites for major agglomerations of the country such as Vlora, Fier and Elbasan. Construction of a common landfill for Durres and Tirana is also planned; the project is at a very early stage of development. Additionally, there are three project ideas targeting the hazardous waste from the industrial sites in Elbasan, Lac and Rubik.

Bosnia and Herzegovina

Bosnia and Herzegovina submitted two projects from the air sector, five for the water sector and one for the waste sector. Air sector projects propose development of the national air quality monitoring system and flue gas de-sulphurisation in the thermal power plant in Kakanj. The only waste project proposes construction of a landfill site for a group of municipalities in Zvornik. Water projects mainly propose development of sewage systems and wastewater treatment plants for selected towns, such as Bijelina, Mostar and Bileca.

Croatia

Croatia submitted two projects from the air sector, 10 from the water sector and 15 waste management sector projects. Air sector projects propose the establishment of a national network for permanent air quality monitoring in the country (i.e. construction of remaining monitoring stations) and a study on assessing the feasibility of district heating systems run on renewable energy sources. For the water sector, mainly construction of wastewater treatment plants is proposed in selected agglomerations, such as Bjelovar, Osije, Sisak and Vrbovec. In the waste sector, all planned regional waste management centres are presented, for example: development of the Mariscina Central Management Zone (Primorsko-Goranska County) and a regional waste management centre for eastern Slavonia. Additionally, selected remediation projects are proposed for industrial sites and municipal landfills on Croatian islands. Many of proposed projects were included in national ISPA strategy under IPA project pipeline.

Former Yugoslav Republic of Macedonia

The Macedonian list consists of three projects in the air sector, 13 projects in the water sector and two waste management projects. Air sector projects cover decreasing air pollution from thermal power plants, a medical centre and a sugar factory. The priority water sector projects mainly propose construction of wastewater plants for major agglomerations of the country including Skopje, Veles and Bitola, followed by wastewater plants for industrial facilities. Waste projects focus on management of industrial waste in Skopje and Oslomej.

Serbia and Montenegro

Serbia

There are three air sector projects for Serbia, along with six projects for the water sector and 10 for the waste sector. Air sector projects focus on improvements in the air emissions from the major industrial facilities, e.g. in the thermal power plant in Kolubara. For the water sector, few wastewater treatment plants for municipalities are proposed. The majority of projects target improvements of sewage treatment in industrial complexes. In the waste sector projects, there is a combination of municipal waste management proposals, such as for Kragujevac or Vladicin Han, together with improving waste management for industrial complexes such as the Kolubara thermal power plant.

Montenegro

On the list from Montenegro there are two air sector projects, three water sector projects and four waste sector projects. Air sector projects propose improvements to the thermal power plants. Water sector projects target upgrades of already existing wastewater treatment plants such as in Podgorica or Niksic, and construction of sewage systems and new wastewater treatment plants, for example in Kotor and Tivat. Waste projects introduce construction of a new Podgorica landfill site and a new hazardous waste landfill for the republic. Additionally, improvements for waste management in the industrial complexes are proposed.

Kosovo (territoty under UN interim administration)

There are two air sector projects proposed, eight from the water sector and four from the waste sector. Air sector projects propose establishments of a network for permanent air quality monitoring and improvements in the thermal power plant. Water sector projects introduce construction of regional wastewater treatment plants covering all regions of the entity. Waste sector projects propose improvements in industrial complexes of thermal power plants.

TABLE 20

System of criteria used for prioritisation

INDICATOR	CRITERION	WEIGHT	SCORE
1. Strategic criteria		**0.20**	
Project addresses an environmental threat of regional importance	Yes No		100 0
Project implementation linked to compliance with the EU acquis	Yes No		75 0
Project priority from national point of view (i.e. national priority)	Yes No		50 0
2. Geographical criteria		**0.15**	
Project location impact	Hot spot or specially protected area		100
	Downtown area or other densely populated area		75
	Loosely populated area		25
3. Health and Environmental criteria		**0.30**	
Population directly impacted by reduction of a health risk (size of population)	> 50,000 50,000-25,000 <25,000		100 75 50
4. Legal criteria		**0.1**	
Clear and settled ownership to land and objects	Yes No		100 0
5. Technical criteria		**0.05**	
Degree of technology modernity	Modern Modern, but not widely implemented Traditional Old		100 75 50 0
6. Social criteria		**0.05**	
Public participation	Yes No		50 0
7. Economic and financial criteria		**0.1**	
Co-financing (planned)	>50% 20-50% 20 % <		100 50 0
8. Project maturity		**0.05**	
Project phase	Project idea Feasibility study exists Implementation		50 75 100

Note: maximum number of points per category of criteria is not always 100. This approach was agreed at the stage of methodology development.

Prioritisation of projects on the list

Based on information provided in the project identification forms and initial screening for eligibility, eligible projects were prioritised. Table 20 presents the used and agreed system of criteria, weights and scores for prioritisation. Based on the agreed methodology, all projects which reached more than 60 percent of the total score were called high priority projects. Detailed results of the prioritisation of all projects are presented in Annex 3.

It can be concluded that 88 percent of the projects submitted to the list were scored as high priority projects. There are 12 high priority projects for air sector, 48 for water and 41 for waste. High priority projects are those that can bring an important contribution to the state of the environment on a regional (SEE) scale. Implementation of these projects also leads to implementation of the key EU investment heavy directives. Additionally, these projects have the potential to become bankable (i.e. subject of further work with the international financing institutions). Figure 8 presents the number of high priority projects in the counties.

Based on the information provided by project proponents on the project identification forms and approved by the SEE ministries of environment it can be seen that a total of EUR 1,613 million is needed to implement high priority projects from the list. See Table 21 for high priority projects and funds needed for their implementation. Caution should be taken when reading the total costs of projects, as there are no unified methods for calculating investment costs in the region, and therefore similar infrastructure projects might have a different range of costs.

FIGURE 8

Number of high priority projects as a result of prioritisation of the list

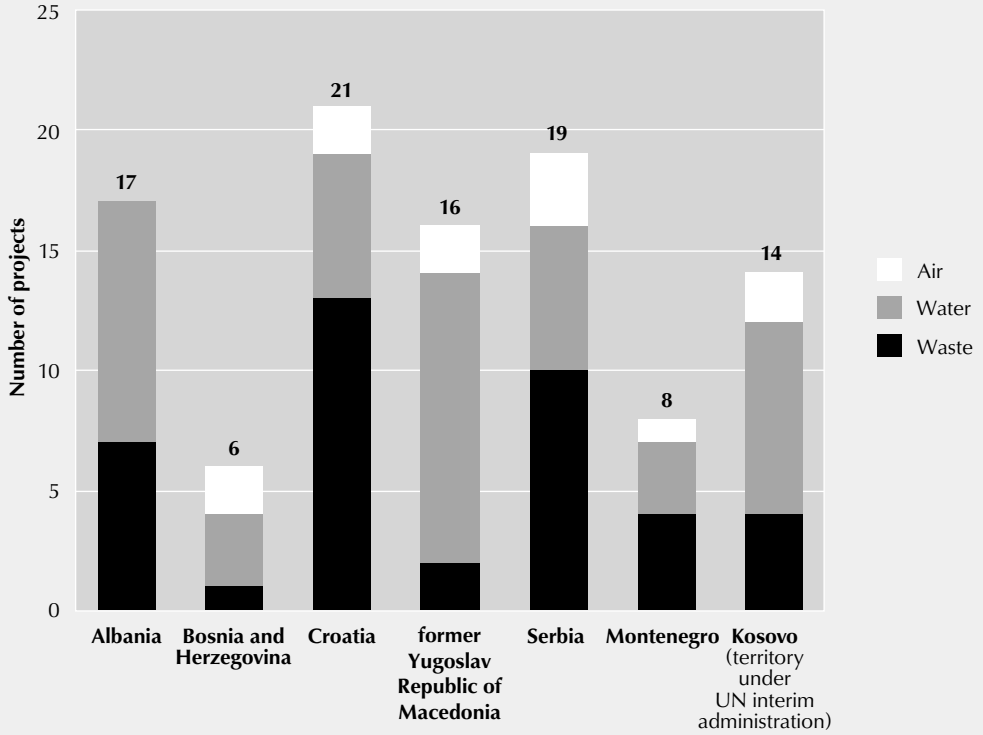


TABLE 21

High priority projects and funds needed for their implementation

SECTOR	AIR		WASTE		WATER	
	Project ID	Unsecured funds (in million EUR)	Project ID	Unsecured funds (in million EUR)	Project ID	Unsecured funds (in million EUR)
ALBANIA			AL-2	1.53	AL-1	4
			AL-3	1.6	AL-9	20
			AL-8	1.45	AL-10	2
			AL-16	1	AL-11	1.732
			AL-21	1	AL-12	N/A
			AL-22	1	AL-13	5
					AL-14	5
					AL-15	5
					AL-17	70
					AL-19	4
					AL-20	1
BOSNIA AND HERZEGOVINA	BH-1	1.174	BH-5	0.937	BH-2	9
	BH-9	39			BH-6	23.75
					BH-7	2.625
CROATIA	HR-5	2.38	HR-10	34.822	HR-29	6.1
	HR-28	15	HR-11	25	HR-32	23
			HR-15	2.5	HR-34	45
			HR-16	13.5	HR-35	30.5
			HR-17	0	HR-37	10.8
			HR-18	57.6		
			HR-19	10.7	HR-38	0
			HR-21	46.6		
			HR-22	2.6		
			HR-24	61.514		
			HR-25	41.6		
			HR-26	26.865		
			HR-27	1.38		
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	MC-13	9	MC-4	6.5	MC-1	53.71
	MC-34	1.205	MC-32	0.775	MC-7	11.415
					MC-30	13.76
					MC-2	9.19
					MC-9	7.322
					MC-19	0.1

TABLE 21

High priority projects and funds needed for their implementation (continued)

SECTOR	AIR		WASTE		WATER	
	Project ID	**Unsecured funds (in million EUR)**	**Project ID**	**Unsecured funds (in million EUR)**	**Project ID**	**Unsecured funds (in million EUR)**
					MC-20	81
					MC-26	1.89
					MC-27	7.965
					MC-28	0.173
					MC-29	36
					MC-35	1
SERBIA AND MONTENEGRO **Montenegro**	MN-3	3 or 40	MN-1 MN-4	7.2 2.2	MN-7 MN-8	30.135 15.8
			MN-5	5	MN-10	4.5
			MN-9	9.17		
Serbia	SR-2	2.025	SR-3A	2.25	SR-9	11.35
	SR-4	7	SR-3B	4.5	SR-1	4.76
	SR-6	0.05	SR-3C	1.9	SR-5	8.561
			SR-10	0.25	SR-7	3.861
			SR-12	1.058	SR-8	3.7
			SR-14	0.22	SR-11	0.4
			SR-15	1.716		
			SR-16	6		
			SR-17	0.179		
			SR-18	5.82		
Kosovo (territory under UN interim administration)	KO-5	41	KO-13	4.1	KO-1	37.767
	KO-11	2	KO-14	3.5	KO-2	93.694
			KO-15	1.5	KO-3	127.89
			KO-16	1.5	KO-7	73.872
					KO-8	45.283
					KO-9	56.793
					KO-10	62.067
					KO-12	1.5
Total		141.334		398.536		1,074.07
Grand total						**1,613.94**

Note: for MN-3 the average was taken for the purpose of this calculation.

General observations

Developing and updating the list of projects was a major learning exercise for the SEE countries. It was evident that for many priority projects it is still difficult to obtain basic information, especially in relation to financial data. Additionally, although similar types of projects are proposed for the list, they often have a very different cost range due to the lack of harmonised methodology for cost estimates in SEE. Therefore the total costs of projects presented in the lists should be taken with caution.

The updated list of projects represents the most comprehensive list of priority environmental problems to be targeted having impact on the environment in South Eastern Europe at the moment. The lists of projects have a dynamic character, which means that the list should not be treated as final, but rather an overview of investment needs and problems at this particular moment of the update.

BOX 22

Lessons learned from developing lists of projects in SEE

In the upcoming years, many SEE countries will be facing the challenge of developing various lists of projects for complying with the EU directives or presenting the problems in the particular sector or area of the environment to donors in a harmonised way. The work on PEIP lists of projects resulted in several lessons learned from this process.

Collection of project ideas

- A well prepared project identification form is the key to gathering all relevant information to be used in prioritisation. The developed form should be screened against the approved criteria for prioritisation that it will be able to provide all necessary data.
- The project identification form should be accompanied by guidelines for the project proponent on how to fill it in. This is especially important if the list gathers information from new stakeholders (e.g. municipalities after decentralisation, industry sector).
- The process of gathering data for the lists of projects should be well communicated to the target stakeholders so that they understand the aim of the list and steps in the process of prioritisation. It can be accompanied by providing training to the target stakeholders.
- It is useful to involve consultants in collecting information on particular projects. They can be in direct contact with target project proponents and provide them necessary assistance. It will shift the burden of work from the ministries of environment.
- Special attention and assistance should be provided to target stakeholders in relation to the financial information to be gathered, as it is proved that this is usually the weakest part of the form.
- It is important to conduct frequent updating of the project list, so that newly identified projects can be quickly added.

Prioritisation

- The proposed criteria for prioritisation should be clearly communicated to the target stakeholders so that they understand the aim of prioritisation.
- The criteria chosen should be cross-checked with the reality in the country to avoid a situation that criteria require gathering information which are not accessible in the country (or can not be compared).

Presenting lists of projects

- Special attention should be paid to whom the lists of projects will be presented, which should determine how they are presented (e.g. focus on regions, on sector on financial information, on environmental problem, etc).
- Existing initiatives should be identified and reviewed so that the list shows links to them. This process stimulates a better justification for projects and the need for their implementation.
- Monitoring changes on the national policy level gives the opportunity to identify new target stakeholders (e.g. decentralisation changes, privatisation processes).
- It should be noted that any list is a dynamic tool of identifying problems and possible solutions. The lists should therefore be reviewed periodically and adjusted to the actual situation in the country.

The projects presented should therefore be taken as background information for further work on project formulation and project preparation. The lack of projects representing a particular sector should not be understood as a lack of problems in this sector in a country, but rather as areas where SEE countries are having difficulties collecting information and identifying projects. (See Box 22.)

Endnotes

1 REC 2003

2 There are few projects on the list without a PIF. They were added to the list upon special request of the ministries of environment. Special note is given about this in the list of projects table.

TABLE 22

Presentation of lists of priority projects

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
ALBANIA							
1	AL-1	WT	Rehabilitation and Extension of Water Supply and Sewerage System for Durres City	HP	4.9	0.8	4.1
2	AL-2	WS	Management Plan and Construction of Landfill for Urban Solid Waste in Elbasan	HP	1.53	0	1.53
3	Al-3	WS	Urban Waste Management and Construction of Sanitary Landfill in Fier City	HP	1.6	0	1.6
4	AL-8	WS	Management Plan for Urban Solid Waste of Shkodra City and Construction of Sanitary Landfill (Including Koplic)	HP	1.55	0.1	1.45
5	AL-9	WT	Water Supply Rehabilitation Design in the Municipality of Vlora, Albania	HP	20	0	20
6	AL-10	WT	Sewerage System for Fier City	HP	2	0	2

Legend: **HP**=high priority; **OP**= other priority;
INTR=ISG group has indicated interest in the project;
REM= project removed; **FS**=funds secured

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Decrease of pollution of the Adriatic Sea	Investment funds have not been secured. A detailed cost estimation will be given in the master plan. Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. Project information form (PIF) updated; 2. Grant from Government of Luxembourg for development of Master Plan, capacity building and construction of pipe link to WWTP; 3. It is planned to finish feasibility study by the end of 2005; 4. Population covered by project implementation: 113,000.
	Reduction of pollution of the Shkumbini River and the Adriatic Sea; decrease of transboundary air pollution	Funds have not been secured to construct a landfill or to set up a waste collection system. Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. PIF updated; 2. Waste from Elbasan dumped near the Shkumbini river; 3. Population benefiting directly from project implementation: 102,265 inhabitants; 4. Detailed engineering design completed.
	Reduction of pollution of ground and surface waters and the Adriatic Sea	Own resources to be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. PIF updated; 2. Population benefiting directly from project implementation: 123,000; 3. Engineering designs available; 4. City waste deposited in a dumpsite without any sanitary measures.
	Reduction of pollution of the Adriatic Sea; Reduction of pollution of Shkoder Lake.	Co-financing from SEENET and the Italian Government is available for a feasibility study and EIA. Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. PIF updated; 2. Waste dumped a few kilometres from the Adriatic Sea; 3. Population directly benefiting from project implementation: 96,000; 4. Feasibility study under preparation.
	N/A	Co-financing is under negotiation with the Dutch government. Investment funds have not been secured. Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. Lack of 24-hour supply of drinking water; 2. PIF updated; 3. Population benefiting directly from project implementation: 105,000; 4. Feasibility study to be finalised in 2005.
	Decrese of pollution of the Adriatic Sea	Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. PIF updated; 2. Old and underdeveloped sewage system; 3. Population benefiting directly from project implementation: 123,600; 4. Engineering designs exist.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
ALBANIA (continued)							
7	AL-11	WT	Rehabilitation and Extension of Water Supply and Sewerage System in Lezha Town	HP	1.732	0	1.732
8	AL-12	WT	Rehabilitation and Extension of Water Supply and Sewerage System in Saranda	HP	N/A	N/A	N/A
9	AL-13	WT	Construction of the Sewerage System and Treatment Plant for the Town of Koplik	HP	5	0	5
10	AL-14	WT	Construction of Sewerage System and Treatment Plant for the Town of Velipoja	HP	5	0	5
11	AL-15	WT	Works for the Construction of the Sewage System and Treatment Plant for the Town of Lac	HP	5	0	5
12	AL-16	WS	Works for the Construction of the Sanitary Landfill for the Town of Lac	HP	1	0	1
13	AL-17	WT	Construction of a Common Sewerage Water Treatment Plant for Tirana and Surroundings	HP	70	0	70

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Decrease of pollution of the Adriatic Sea	The development of the master plan is supported by the government of Luxembourg with around EUR 600,000. Investment funds have not been secured. A detailed cost estimate will be given in the master plan. Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. PIF updated; 2. Feasibiltity study to be completed by the end of 2005; 3. Population covered by project implementation: 16,900.
	Decrease of pollution of the Adriatic Sea	Investment funds have not been secured. A detailed cost estimate will be given in the master plan. Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. PIF updated; 2. Feasibity study to be completed by end of 2005; 3. Grant from government of Luxembourg received for master plan development; 4. Population covered by project implementation: 14,000; 5. Project has not yet been fully defined.
	Reduction of pollution of Shkoder Lake	Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. New PIF; 2. Old and under developed sewage system, and a lack of wastewater treatment plants; 3. Population benefiting directly from project implementation: 36,000.
	Reduction of discharges of untreated wastewater to the Adriatic Sea	Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. New PIF; 2. Direct discharges to the Adriatic Sea. 3. Population benefiting directly from project implementation: 10,000.
	Reduction of direct discharges to the Mat River and the Adriatic Sea	Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. New PIF; 2. Population directly benefiting from project implementation: 55,000.
	Reduction of water pollution and transboudary air pollution (from dumpsite fires)	Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. New PIF; 2. Waste dump site located on the bank of the Mat River; 3. Population benefiting directly from proejct implementation: 65,000.
	Reduction of pollution of the Tirana River and Adriatic Sea	Funds have not been secured for investment part. JICA supported a feasibility study, EIA and engineering design with EUR 1 million. The water supply tariff is EUR 0.04. Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. New PIF; 2. Direct discharges of sewage into the Tirana River, 3. Feasibility study under preparation; 4. Investment foreseen for three phases: phase 1: EUR 20 million; phase 2: EUR 30million; phase 3: EUR 20 million.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
ALBANIA (continued)							
14	Al-19	WT	Works for the Construction of the Sewerage System and Treatment Plant for Ballsh	HP	4	0	4
15	Al-20	WS	Works for Construction of Sanitary Landfill for Ballsh	HP	1	0	1
16	Al-21	WS	Works for the Construction of the Sanitary Landfill for Vlora	HP	1	0	1
17	Al-22	WS	Works for the Construction of a Sanitary Landfill for Saranda	HP	1	0	1
18	Al-23	WS	Construction of a Common Sanitary Landfill for Durresi and Tirana	OP	Project included as it is a very high priority idea of the Ministry of Environment, Forestry and Administration of Waters.		
19	Al-24	WS	Feasibility Study and Environmental Rehabilitation at the Historic Hot Spot of the Metallurgical Complex in Elbasa	OP	Project included as it is a very high priority idea of the Ministry of Environment, Forestry and Administration of Waters.		
20	Al-25	WS	Feasibility Study and Environmental Rehabilitation at the Historic Hot Spot at the Phosphate Fertiliser Factory – Lac Area	OP	Project included as it is a very high priority idea of the Ministry of Environment, Forestry and Administration of Waters.		
21	Al-26	WS	Feasibility Study and Environmental Rehabilitation at the Historic Hot Spot at the Former Metallurgical Plant – Rubik	OP	Project included as it is a very high priority idea of the Ministry of Environment, Forestry and Administration of Waters.		
22	AL-4	WS	Urban Solid Waste Management Plan for Pogradec Town	FS - REM			
23	AL-5	WT	Sewage Water Treatment Plant for Lezha Town	FS - REM			
24	AL-6	WT	Wastewater Treatment Plant for Durres City	FS - REM			
25	Al-7	WT	Saranda Wastewater Treatment Plant	FS - REM			
26	AL-18	WS	Works for the Construction of Sanitary Landfill for Lushnja and Divjaka (and Fier)	REM			

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	N/A	Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. New PIF; 2. Population benefiting directly from project implementation: 40,000.
	N/A	Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. New PIF; 2. Population benefiting from project: 40,000.
	Reduction of pollution of the Adriatic Sea	Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. New PIF 2. Population covered by project implementation: 85,000.
	Reduction of water pollution of the Adriatic Sea (Greece)	Own resources will be defined at a later stage.	Ministry of Public Works, Transport and Telecommunication	1. New PIF 2. Population covered by project implementation: 14,500.
				No PIF submitted. Information to be provided at a later stage.
				No PIF submitted. Information to be provided at a later stage.
				No PIF submitted. Information to be provided at a laterstage.
				No PIF submitted. Information to be provided at a later stage.
				Waste management for Pogradec involves costructing a regional landfill for the Korca region (six municipalities, including Pogradec). Investment under way with KfW funds
				Funds secured through GEF and EIB
				Funds secured through GEF and EIB
				Funds secured through GEF and EIB
				Merged with AL-3

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
BOSNIA AND HERZEGOVINA							
1	BH-2	WT	Sewage System and Wastewater Treatment Plant for Bijelina City	HP, INTR	10.195	1.195	9
2	BH-1	Air	National Air Quality Monitoring	HP	1.244	0.07	1.174
3	BH-5	WS	Construction of Landfill Site for a Group of Municipalities in Zvornik	HP	1.187	0.25	0.937
4	BH-6	WT	Construction of the Wastewater Treatment System for the City of Mostar	HP	25	1.25	23.75
5	BH-7	WT	Construction of the Wastewater Treatment System for the City of Bileca	HP	3.5	0.875	2.625
6	BH-9	Air	Flue Gas De-Sulphurisation Project in the Kakanj Thermopower Plant	HP	60	21	39

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Reduction of river pollution	A combination of grants (70%) and loans (20%) is foreseen. After constructing a wastewater treatment system, a fee will be set at EUR 0.76 per cubic metre.	A municipality with water and wastewater utility; ownership is being settled	1. PIF updated in June 2005; 2. City of 80,000 inhabitants; 3. No sewage system or sewage treatment facilities; 4. Area where wastewater is discharged is a rich source of underground water; 5. Protection of the Grmic drinking water source is a priority.
	Better recognition of air quality problems in the region; better monitoring of air pollution sources	A combination of grants and loans is foreseen, as is involvement of the private sector.	Public sector responsible for project implementation	PIF updated in June 2005.
	Reduction of pollution of water systems through elimination of illegal dumpsites	A combination of grants and loans is foreseen.	Municipality of Zvornik	1. PIF updated in June 2005; 2. Feasibility study exists; 3. Population covered: 110,000 inhabitants; 4. After construction, the municipality will run a concession for management and servicing of the landfill.
	Reduction of pollution of the Adriatic Sea; reduction of transboundary pollution of the Neretva River	A combination of grants and loans is foreseen. The planned fee after the facility is constructed is EUR 0.52 per m^3.	Municipality of Mostar and Vodovod public enterprise	1. PIF not updated; 2. Around 100,000 inhabitants covered by the project; 3. Feasibility study under preparation; 4. No wastewater treatment facility.
	Reduction of pollution of the Trebisnica River, the source of drinking water for parts of BiH, Croatia, and the Republic of Montenegro; direct cross-border impact	A grant is foreseen. At present the fee for wastewater is EUR 0.26 per m^3, which will increase to EUR 0.72 per m^3.	Municipality of Bileca (ownership issues are settled)	1. PIF updated in June 2005; 2. Sewage networks covers 55% of the city; 3. Untreated water discharged into Bileca Lake; 4. Bileca Lake is a source of drinking water and the source of Trebisnica River (source of drinking water for the entire region); 5. Feasibility study exists.
	Reduction of transboundary air pollution		Public joint stock company (90% state owned, 10% other) Ownership issues settled.	1. New PIF on the list; 2. Around 500,000 people affected by pollution (including cross-border pollution);

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
BOSNIA AND HERZEGOVINA (continued)							
7	BH-3	WT	Protection of Modrac Water Reservoir as the Main Source of Water for the Population and Industry of Tuzla Canton	OP	43.1	10.5	32.6
8	BH-4	WT	Construction Sewage System and Wastewater Treatment Plant for Kljuc Municipality	OP	1	0.1	0.9
9	BH-8	WT	Construction of the Wastewater Treatment System for the City of Sarajevo	REM - project is updated on DABLAS list			
CROATIA							
1	HR-5	Air	Establishment of the National Network for Permanent Air Quality Monitoring in the Republic of Croatia	HP, INTR	2.95	0.56	2.38
2	HR-10	WS	Development of Regional Waste Management Centre at Mariscina	HP, INTR	34.822	0	34.822
3	HR-11	WS	Remediation and Closing Down of the Sovjak Pit, Primorje-Gorski Kotar County	HP	25	0	25
4	HR-15	WS	Remediation of the Asbestos Polluted "Mravinacka kava" Site	HP	2.526	0.026	2.5

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	No direct regional impact of the project	A combination of grants and loans is foreseen.	Ownership issues being settled	1. PIF not updated; 2. Water pollution affecting the quality of the drinking water source; 3. Modrac is the most important source of drinking water for the Tuzla region; 4. Around 150,000 inhabitants live in the vacinity of the water reservoir.
	No direct regional impact of the project		Public company	1. PIF not updated; 2. Lack of sewage system and sewage treatment; 3. Estimated population covered: 6,000 inhabitants.
				PIF not updated.
	Reduction of transboudary air pollution through well developed air monitoring system	Project is proposed to be financed through the PHARE 2006 programme and the state budget. The project refers to 12 air quality monitoring stations.	Public sector	1. PIF updated; 2. Population of Croatia directly benefiting from project implementation.
	Reduction of regional environmental pollution and Adriatic Sea	A combination of grant and loan is foreseen.	Public enterprise	1. PIF updated; 2. Project included in the final draft of the National ISPA strategy, environmental sector, June 2005.
	Reduction of regional pollution risk through closure and remediation of abandoned hazardous waste landfill, which is located in a very sensitive karst area	The project was submitted to ISPA technical assistance, included in the final draft of the national ISPA strategy, environmental sector, June 2005. A combination of grant and loan is foreseen.	Public sector	1. New PIF; 2. Population benefiting directly from project implementation: 200,000.
	Reduction of regional pollution risk from asbestos	Contribution from ministry budget and grant from Fund for Environmental Protection and Energy Efficiency foreseen.	Public sector	1. New PIF; 2. Population benefiting directly from project implementation: 80,000.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
CROATIA (continued)							
5	HR-16	WS	Remediation of the Red Sludge Lagoon of the Former Alumina Factory, Obrovac	HP	13.526	0.026	13.5
6	HR-18	WS	Dubrovnik-Neretva County Center for Waste Management and Remediation of the Landfills	HP	59	1.4	57.6
7	HR-19	WS	Regional Centre for Waste Management of East Slavonia	HP	29.9	19.2	10.7
8	HR-21	WS	Construction of a Regional Waste Management Centre in North West Croatia and Remediation of the Landfills	HP	53.1	6.5	46.6

REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
Reduction of pollution of the entire karst area from hazardous waste	A contribution is expected from the ministry budget. A co-financing grant from the fund and a loan are foreseen.	Public sector	1. New PIF; 2. Population benefiting directly from project implementation: 162,000.
Reduction of regional and Adriatic Sea environmental pollution	The project has technical support from the CARDS 2002 project Waste Management in Dalmatian Counties for the establishment of a regional waste management centre. The project has also secured EUR 1 million from the Fund for Environmental Protection and Energy Efficiency for remediation of the landfills. A combination of grant and loan is foreseen.	Public sector	1. New PIF; 2. Creation of integrated waste management system; 3. Population directly benefiting from project implementation: 123,000; 4. Project has two phases: establishment of the county centre for waste management and construction of four transfer stations; and remediation and closure of existing landfills; 5. Project included in the final draft of the National ISPA strategy, environmental sector, June 2005; 6. Project awaiting necessary permits; 7. Location not yet defined.
Reduction of regional human health hazards and environmental threats	Construction, financing and operation of waste disposal will be ensured through a concession contract with a private company. The preparation of documentation for transfer stations is co-financed by the Environmental Protection and Energy Efficiency Fund. A combination of grant and loan is foreseen for the construction of the centre and transfer stations (recycling has not been defined yet).	Public enterprise	1. New PIF; 2. The project integrates municipalities in two counties. Population benefiting from project implementation: 525,000; 3. Project is included in the final draft of the National ISPA strategy, June 2005 in the IPA project pipeline.
Reduction of regional human health hazards and environmental threats	The project is co-financed by EU INTERREG IIIB CADSES, local budget, and the Environmental Protection and Energy Efficiency Fund. A combination of grant and loan is foreseen.	Public enterprise	1. New PIF; 2. The project integrates municipalities in four counties. Population benefiting from project implementation: 573,300; 3. Feasibility study exists; 4. Project included in the National ISPA strategy in the IPA project pipeline, June 2005.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
CROATIA (continued)							
9	HR-22	WS	Remediation and Expansion of the Municipal Waste Landfill Sagulje-Ivik	HP	5.2	2.6	2.6
10	HR-24	WS	Establishment of the Regional Waste Management Centre of the County of Split-Dalmatia	HP	62.5	1.386	61.514
11	HR-25	WS	Establishing of the Regional Waste Management Centre and the Remediation of the Landfills, Zadar County	HP	48	6.4	41.6
12	HR-26	WS	Integration and Modernisation of the Waste Management System in the Territory of the County of Istria	HP	28.3	1.435	26.865
13	HR-27	WS	Remediation of Existing Landfill Goricica, Sisak, Phase 2	HP	5.5	4.12	1.38
14	HR-28	AIR	Study to Assess District Heating Systems That are Fired on Renewable Sources of Energy (Wood Waste from the Croatian Forestry Enterprise), Including Project Preparation	HP	15	0	15

REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
Reduction of transboudary pollution	The project is partly co-financed by the Fund for Environemntal Protection and Energy Efficiency.	Public sector	1. New PIF; 2. Population benefiting directly from project implementation: 150,000.
Reduction of pollution of Adriatic Sea	The project is partly co-financed by the Fund for Environmental Protection and Energy Efficiency and the CARDS 2002 technical assistance project Waste Management in Dalmatian Countries. A combination of loan and grant is forseen.	Public enterprise	1. New PIF; 2. Population benefiting from project implementation: 465,000; 3. New centre for waste management is included in the final draft of the national ISPA strategy in the IPA project pipeline.
Reduction of pollution of Adriatic Sea	Co-financing has been partially secured from the Envrionmental Protection and Energy Efficiency Fund, the CARDS 2001 MEMCI project and the CARDS 2002 project Waste Management in Dalmatian countries (technical assistance).	Public enterprise	1. New PIF; 2. Population benefiting directly from project implementation: 160,000; 3. Feasibility study under preparation; 4. Project is included in the IPA project pipeline in the final draft of the national ISPA strategy, environmental sector, June 2005; 5. Project awaiting necessary permits; 6. Location not yet determined.
Reduction of pressure of regional environment and Adriatic Sea	Co-finanicing is partially provided by the Environmental Protection and Energy Efficiency Fund. A combination of loan and grant is foreseen	Public enterprise	1. New PIF; 2. Population benefiting directly from project implementation: 200,000. 3. Project included in the IPA project pipeline in the final draft of the national ISPA strategy, environmental sector, June 2005; 4. ISPA TA application submitted.
Reduction of regional environmental risks	A combination of grant and loan is foreseen. 60% of the funds needed have already been secured.	Public enterprise	1. New PIF; 2. Population benefiting directly from project implementation: 60,000.
Reduction of transboundary air pollution	Financing from the Fund for Environmental Protection and Energy Efficiency and the Croatian Forestry Enterprise, and other grant sources are foreseen.	Local authorities	1. New PIF; 2. Population benefiting directly from project implementation: 110,000.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
CROATIA (continued)							
15	HR-29	WT	Wastewater Treatment Plant for Bjelovar City	HP	6.1	0	6.1
16	HR-32	WT	Wastewater Treatment Plant for Osijek	HP	23	0	23
17	HR-34	WT	Wastewater Treatment Plant for Sisak	HP	68	23	45
18	HR-35	WT	Wastewater Treatment Plant in Slavonski Brod	HP	31.1	0.8	30.5
19	HR-38	WT	Construction of Wastewater Treatment Plant in Zapresic	HP	13.5	2.7	10.8
20	HR-17	WS	Regional Waste Management Centre Bikarac, Stage 1 (Sibenik-Knin County)	HP	Project not prioritised due to submission of the application for ISPA funding		
21	HR-37	WT	Karlovac Water Supply and Sewage Services Development Programme	HP	Project not prioritised due to submission of the application for ISPA funding		
22	HR-20	WS	Remediation and Closing of the Landfill Kokojevica	OP	4.4	2.2	2.2
23	HR-23	WS	Remediation of Municipal Waste Landfill Sitnica	OP	0.85	0.09	0.76
24	HR-30	WT	Wastewater Treatment Plant for Bjelovar City Drnis	OP	3	0	3
25	HR-31	WT	Upgrade of the Wastewater Treatment Plant in the Town of Garesnica	OP	0.82	0	0.82

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Reduction of pollution of surface and underground waters	The project is co-financed by Futureprofit and Croatian Waters.	Public enterprise	1. New PIF; 2. Population benefiting directly from project implementation: 98,000; 3. Project included in national ISPA strategy and DABLAS list.
	Reduction of pollution of the Drava and Danube rivers		Public enterprise	1. New PIF; 2. Population ne-benefiting directly from pro-ject implementation: 150,000; 3. Project is included in ISPA strategy.
	Reduction of pollution of transboundary waters (Sava River)	Co-financing is coming from the project's own sources.	Public enterprise	1. New PIF; 2. Population benefiting directly from pro-ject implementation: 52,000; 3. Pre-feasibility study exists; 4. Project included in ISPA strategy.
	Reduction of pollution of the Sava and Danube rivers	Technical assistance is covered by the Vodovod and Croatian Waters.	Public enterprise	1. New PIF; 2. Project includ-ed in national ISPA strategy and DABLAS list.
		Involvement by the private sector is foreseen.	Public enterprise	1. New PIF 2; Population benefiting from the project
				1. New PIF; 2. Project submit-ed to ISPA 2005-2006.
			implementation: 25,000.	1. New PIF; 2. Project submit-ed to ISPA 2005-2006.
	Reduction of Adriatic Sea pollution through reduction of waste disposal near the sea coast	Half of the funds have been secured from the Fund for Environmental Protection and Energy Efficiency.	Public utility company	1. New PIF; 2. Population benefiting from project implementation: 8,000.
	Reduction of human health hazards and environmental threats (pollution of Adriatic Sea)	The project is co-financed by the Fund for Environmental Protection and Energy Efficiency.	Public utility company	1. New PIF; 2. Population benefiting from project implementation: 8,500.
	Reduction of pollution of the Cikola and Krka rivers, which flow into the Adriatic Sea		Public enterprise	1. New PIF; 2. Population benefiting directly from pro-ject implementation: 5,000; 3. TA for project preparation received through CARDS.
		There is a WWTP — upgrade is needed.	Public enterprise	1. New PIF; 2. Population benefiting from project implementation: 10,000; 3. Feasibility study exists; 4. Project included in DABLAS list.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
CROATIA (continued)							
26	HR-33	WT	Construction of the Wastewater Treatment Plant in Krapina	OP	5.8	0	5.8
27	HR-36	WT	Construction of the Wastewater Treatment Plant in Vrbovec	OP	2	0.4	1.6
28	HR-3	WS	Remediation of Botovo and Construction of the Wash Station in Slavonski Brod	REM - FS			
29	HR-8	WT	Completion of the Refinery Wastewater Treatment Plant in Sisak	REM - FS			
30	HR-9	Air	Acid Gas Treatment with Amine, Acid Water Stripper and Sulphur Production in Sisak	REM - FS			
31	HR-12	WS	Waste Management Primorsko Gorannska County	REM - replaced by new PIFs			
32	HR-1	WS	Animal Waste Management and Effluent Treatment System in the Agroproteinka Rendering Plant in Sesvecki Kraljevec	REM			
33	HR-2	WS	Incinerator for the Pesticide Industry	REM			
34	HR-4	WS	Waste Disposal by Well Injection, INA Oil Industry	REM			
35	HR-6	WS	PIPO Biogas Plant in Cakovec	REM			
36	HR-7	WS	Elimination of Asbestos Pollution and Decontamination of the Production Area	REM			
37	HR-13	WT	Wastewater Storage at AN/CAN Fertiliser Production Plant	REM			
38	HR-14	Air	Continious Gas Emission Monitoring in Kutina	REM - FS project already implemented			

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Reduction of pollution of transboundary waters (Sava River)	Part of the city is already covered by the sewage system .	Public enterprise	1. New PIF; 2. Population benefiting from project directly: 16,000; 3. Project included in the national ISPA strategy.
		A combination of grant and loan is foreseen. Of the funds needed, 60% have been secured.	Public enterprise	1. New PIF; 2. Project is part of ISPA national strategy; 3. Population benefiting from project implementation: 15,000; 4. Project included in national ISPA strategy.
				Funds are secured.
				Funds are secured.
				Funds are secured.
				Funds are secured.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
FORMER YUGOSLAV REPUBLIC OF MACEDONIA							
1	MA-1	WT	Wastewater Treatment System for the City of Skopje (three plants)	INTR, HP	57.71	4	53.71
2	MA-7	WT	Rehabilitation of the Wastewater Treatment Plant at Organo-Chemical Industry, AD OHIS, Skopje	INTR, HP	11.415	0	11.415
3	MA-30	WT	Wastewater Treatment Plant for the City of Veles	INTR, HP	13.76	0	13.76
4	MA-2	WT	Wastewater Treatment Plant for the Town of Prilep	HP	9.19	0	9.19
5	MA-4	WS	Treatment of HCH Waste from Former Lindane Production Plant in Organo-Chemical Industry, AD OHIS, Skopje	HP	6.5	0	6.5
6	MA-9	WT	Wastewater Treatment Plant for the City of Bitola	HP	7.32	0	7.322
7	MA-13	Air	Air Desulphurization in Thermal Power Plant Oslomej/Kicevo	HP	9	0	9
8	MA-19	WT	Wastewater Recycling Project in Thermal Power Plant Kicevo/Oslomej	HP	0.1	0.05	0.1

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Reduction of untreated waste water discharged directly to Vardar River (Greece), and pollution of the river and Thessalloniki Bay	A tariff system exists.	Local government and public enterprise Vodovod I kanalizacija, Skopje	1. Project information form (PIF) updated in June 2005; 2. Pre-feasibility study exists; 3. Wastewater treatment plant for population of around 460,000.
	Reduction of pollution of Vardar River (Greece)	A tariff exists. It is foreseen that the Hellenic Plan for Economic Reconstruction of Balkans (HiPERB) will provide funds, but this has not been confirmed yet.	AD OHIS, Skopje (state-owned company)	1.PIF updated in June 2005; 2. Industrial chemical pollution; 3. Pre-feasibility study exists; 4. Project implementation will have a significant health impact.
	Reduction of pollution of Vardar River and Thessaloniki Bay (Greece)	A system of tariffs exists. A combination of loan and grant is foreseen.	Local government	1. PIF updated in June 2005; 2. WWTP and collection system to cover city population of 50,000; 3. Pre-feasibility study and feasibity study exists
	Addressing cross-border impact (Greece)	A system of tariffs for wastewater exists.	Local government and public enterprise Vodovod I Kanalizacija-Prilep	1. PIF updated in June 2005; 2. Sewage system completed for 70% of the city (the city is working on constructing the remaining 30%); 3. Collected wastewater discharged to the Prilepska River without treatment. 3. Feasibility study exists; 4. Population covered: 77,000 inhabitants.
	Addressing cross-border impact (Greece)		AD OHIS, Skopje	1. PIF updated in June 2005; 2. Population benefiting from project implementation: 50,000; 3. Pre-feasibility study exists.
	Reduction of discharges to the Crna Tribuary of the Vardar River and the pollution of the Aegan Sea		Local government and CPE Niskogradba, Bitola	1. PIF updated in June 2005; 2. Population benefiting from the project: 100,000 inhabitants; 3. Feasibility study exsits.
	Reduction of transboundary air pollution		Oslomej thermal power plant, Kicevo (state owned company)	1. PIF updated in June 2005; 2. Population benefiting from the project: 50,000.
	Addressing cross-border impact (Greece)		Oslomej thermal power plant, Kicevo (state owned company)	1. PIF updated in June 2005; 2. Population benefiting from project implementation: 50,000; 3. Pre-feasibility study exists.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
FORMER YUGOSLAV REPUBLIC OF MACEDONIA (continued)							
9	MA-20	WT	Konsko Hydromelioration System, City of Gevgelija	HP	91	10	81
10	MA-26	WT	Construction of Combined Wastewater Treatment Plant at a Pig Farm, Gradsko	HP	1.89	0	1.89
11	MA-27	WT	Construction of Wastewater Treatment Plant at the Pig Farm, Kumanovo	HP	7.965	0	7.965
12	MA-28	WT	Construction of Combined Wastewater Treatment Plant in Village Stenje, the Prespa Lake	HP	0.173	0	0.173
13	MA-29	WT	Construction of Hydro-System Orizarska Reka	HP	42.5	6.5	36
14	MA-32	WS	Reclamation, Enlargement and Recultivation of Electrostatic Precipitator Ashes Landfill - Oslomej TPP	HP	0.775	0	0.775
15	MA-34	Air	Decreasing Air Pollution in Medical Clinical Centre, Skopje	HP	1.465	0.26	1.205
16	MA-35	WT	Protection of the Ohrid Lake by Construction of Sewage System in the Settlement of Leskoec and its Connection to the Ohrid City Collector	HP	1.2	0.2	1
17	MA-33	Air	Decreasing Air Pollution from the 4ti Noemvri Sugar Factory, Bitola in the Bitola Region	OP	3	0.3	2.7
18	MA-31	WT	Dam on the River Otinja with Associated Facilities, the City of Stip	OP	3.8	1.5	2.3

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Protection of cross-border lake (Greece)	A tariff system exists.	Local government and public enterprise Gevgelisko Pole	1. PIF updated in June 2005; 2.Part of a bigger project; 3. Dorjan Lake Protection.
	Reduction of cross-border impact (Greece)		Pig Farm Gradsko and public enterprise Bioengineering, Skopje	1. PIF updated in June 2005.
	Reduction of cross-border impact (Greece)	A tariff system exists.	Pig Farm Gradsko and public enterprise Bioengineering, Skopje	1. PIF updated in June 2005.
	Protection of cross-border lake (Albania and Greece)	A tariff system exists.	Local government of the settlement Stenje and public enterprise Bioingeneering, Skopje	1. PIF updated in June 2005.
	No regional impact	A system of tariffs exists. A combination of loan and grant is foreseen.	Local government	1. PIF updated in June 2005; 2. Need to ensure delivery of clean drinking water to population; 3. Feasiblity study under preparation; 4. 80,000 inhabitants in total.
	Reduction of transboundary pollution (Greece)		Oslomej thermal power plant, Kicevo (state owned company)	1. New PIF; 2. Population benefiting from project implementation: 50,000-60,000.
	No regional impact		PHO Medical Clinical Centre, Skopje and NGO MCPC	1. New PIF; 2. Population benefiting from project implementation: 670,000.
	Reduction of pollution for cross-border lake (Albania)		Local government settlement of Leskoec, Ohrid	1. New PIF.
	No regional impact		Private company 4ti Noemvri, Bitola and NGO MCPC	1. PIF updated in June 2005; 2. Feasibity study exists; 3. Population benefiting from project implementation: 150,000.
	No regional impact		Local government	1. PIF updated in June 2005; 2. Assuring long-term water source for 55,000 people; 3. Feasibility study exists.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
FORMER YUGOSLAV REPUBLIC OF MACEDONIA (continued)							
19	MA-10	Air	Sulphur Trioxide Flue Gas Conditioning system in Bitola	REM-FS			
20	MA-11	Air	Fire Protection System for Coal Bunkers, Stream Turbine, Lube Oil System and Narrow Bridges	REM-FS			
21	MA-12	Air	Stack Emission Monitoring	REM-FS			
22	MA-14	WS	Remediation of Illegal Hazardous Waste Landfill in Kumarovo	REM-FS			
23	MA-16	WS	Sanitary Protection Zones and Recultivation of the Final Slopes of Soil in Bitola	REM-FS			
24	MA-25	WS	Reconstruction of the Flow Round Tunnel under the Flotation Hydro-Tailing Disposal of Lead-Zinc Mine "Sasa" Makedonska Kamenica	REM-FS			
25	MA-3	Air	Air Pollution Reduction at Silmak Ferro-Alloy Plant	REM			
26	MA-5	WS	Solid Waste Treatment by Procurement of Waste Recycling Equipment in Gostivar	REM			
27	MA-6	WS	Solvent Recuperation from Waste in Paint and Glue Production in (Cakovec) Ohis, Skopje	REM			
28	MA-8	WT	Wastewater Treatment Plant for Fenimak Kavadarci	REM			
29	MA-15	WS	Bio-reclamation Revitalisation of Hydro-tailings Bucim Mine	REM			
30	MA-17	WS	Modernisation of Municipal Landfill through Degasification and Utilisation of Landfill Gas in Skopje	REM			
31	MA-18	WS	Leaching and Cementation Project in Copper Mine Radovis	REM			
32	MA-21	Air	Decreasing of the Air and Soil Pollution with Heavy Metals Containing Dust in Veles	REM			
33	MA-22	Air	Neutralisation of Waste Gases from Sulphuric Acid Plant in Veles	REM			
34	MA-23	WS	Slug Fuming Plant in Veles	REM			
35	MA-24	WT	Recycling of the Water in Fertiliser Factory in Veles	REM			

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
				Funds secured
				Funds secured
				Funds secured
				Funds secured
				Funds secured
				Funds secured
				Project proponent is not responding
				Project proponent not in operation
				Project proponent not in operation
				Project proponent is not responding
				Project proponent is not responding
				Project proponent is not responding
				Project proponent is not responding
				Project proponent not in operation
				Project proponent not in operation
				Project proponent not in operation
				Project proponent not in operation

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
SERBIA AND MONTENEGRO **Republic of Montenegro**							
1	MN-7	WT	Emergency Rehabilitation of the Existing Podgorica Wastewater Treatment Plant and Construction of a New Plant in a Location Outside the City Area (Including the Main Conveyor from the Existing Site to the New Location)	HP, INTR	31.26	1.125	30.135
2	MN-1	WS	Remediation Measures for Mojkovac Mining Waste Disposal Site	HP	7.5	0.3	7.2
3	MN-3	Air	Desulphurisation of Flue Gases in the Pljevlja Thermal Power Plant	HP	5-40 (depending on the method)	0	5-40 (depending on the method)
4	MN-4	WS	Rehabilitation and Remediation Measures for the Inactive Borovica Coal Pit, and for the Disposal Sites of Jagnjilo and Grevo	HP	2.2	0	2.2
5	MN-5	WS	Closure and Remediation of the Existing Waste Disposal Site and Construction of a New Podgorica Landfill along with a Recycling Centre	HP	10	5	5
6	MN-8	WT	Construction of Sewage System in the Town of Tivat, and Expansion and Reconstruction of the Sewage System in the Town of Kotor	HP	16	0.2	15.8
7	MN-9	WS	Construction of a Hazardous Waste Landfill in Montenegro	HP	9.17	0	9.17
8	MN-10	WT	Upgrade of the Existing Wastewater Facility in Niksic	HP	4.5	0	4.5
9	MN-2	Air	Reconstruction and Increase of the Capacity of Electrostatic Precipitators in Pljevlja Thermal Power Plant	OP	0.5	0	0.5
10	MN-6	WT	MN-6 merged with MN-7	REM - this project has merged			

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Direct discharges to Moraca River; impact on quality of Skadar Lake (cross-border lake)	A soft loan is foreseen.	Municipality and public enterprise	1. PIF updated in June 2005; 2. Population covered by the project: 150,000; 3. Feasibility study exists.
	Reduction of cross-border impact on the Tara River		State-owned	1. PIF updated in June 2005; 2. Remediation study and risk assessment already conducted; 3. Population benefiting directly from project implementation: 11,000.
	Reduction of transboundary air pollution		State-owned company	1. PIF not updated; 2. Around 40,000 people benefiting directly from project implementation.
	Reduction of transboundary air pollution		State-owned company	1. PIF not updated. 2. Population benefiting directly from project implementation: 40,000. 3. Engineering designs exist.
	Protection of the underground water that flows beneath the dumpsite	A soft loan is foreseen. The current price for waste disposal is EUR 8.40 per tonne.	Local government	1. PIF updated in June 2005. 2. Population benefiting from project implementation: 200,000; 3. Feasibility study exists.
	Reduction of Adriatic Sea pollution		Local government	1. PIF updated in June 2005; 2. Estimated population benefiting directly from project implementation: 70,000 population.
	Reduction of transbondary pollution		Government	1. New PIF; 2. There are no facilities for handling hazardous waste.
	Improved quality of Zeta River, positive effects on Skadar Lake (cross-border lake)	A soft loan is planned (40% of total cost).	Municipality company	1. New PIF.
	Reduction of transboundary air pollution		State-owned company	1. PIF not updated; 2. Population benefiting directly from project implementation: 40,000; 3. Engineering designs exist.
				No update because the project was merged into another.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
Republic of Serbia							
1	SR-3A	WS	Waste Management System for Kragujevac (Component A: Rehabilitation with Enlargement and Recultivation of Existing Waste Disposal Site — Jovanovac — with its Safety Detainment)	INTR, HP	2.5	0.25	2.25
2	SR-3B	WS	Waste Management System for Kragujevac (Component B: Construction of Waste Recycling Center)	INTR, HP	5	0.5	4.5
3	SR-3C	WS	Waste Management System for Kragujevac (Component C: Construction of New Landfill Site at Vitliste)	INTR, HP	1.9	0	1.9
4	SR-9	WT	Upgrade and Extension of Wastewater Treatment Plant in Subotica	INTR, HP	14.35	3	11.35
5	SR-1	WT	Upgrade and Extension of the Kolubara-Prerada Wastewater Treatment Plant	HP	4.76	0	4.76
6	SR-2	Air	Decreasing Air Pollution from Zastava Energetika	HP	2.025	0	2.025
7	SR-4	Air	Revitalisation of Copper Smelter and Sulphuric Acid Plants in Bor	HP	7	0	7
8	SR-5	WT	Construction of New Wastewater Collector for the Krivelj River (Including Reconstruction of the Collector in the Length of 80 metres and the Monitoring Systems for Tailings Dams), Bor Mine	HP	8.561	0	8.561
9	SR-6	Air	Improvement of the Regulation System in Kolubara A Thermal Power Plant	HP	0.05	0	0.05
10	SR-7	WT	Rejuvenation of Lake Ludas	HP	3.861	0	3.861

REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
Prevention of pollution of groundwaters and bodies of water	A combination of loan and grant is foreseen.	Local authority	1. PIF updated in June 2005; 2. Population benefiting directly from project implementation: 180,000; 3. Prefeasibility study exists.
Prevention of pollution of groundwaters and bodies of water	A combination of loan and grant is foreseen.	Local authority	1. PIF updated in June 2005; 2. Population benefiting directly from project implementation: 180,000; 3. Pre-feasibility study exists.
Prevention of pollution of groundwaters and bodies of water	A combination of loan and grant is foreseen.	Local authority	1. PIF updated in June 2005; 2. Population benefiting directly from project implementation: 180,000; 3. Pre-feasibility study exists.
Reduction of water pollution of Lake Palic, Ludos and the Tisa River (cross-border impact)	A combination of loan and grant is foreseen.	Municipal company, public enterprise	1. PIF updated in June 2005; 2. Population directly benefit ing from project implementa tion: 100,000; 3. Pre-feasibility study exists.
Improvement of water quality of the Kolubara and Sava rivers	The first phase of the project costs EUR 1,800,000.	State-owned company	1. PIF updated in June 2005; 2. Population benefiting directly from project implementation: 64,000.
Decrease of transboudary air pollution	Technical assistance costs EUR 25,000.	State-owned company	1. PIF updated in June 2005; 2. Population benefiting directly from project implementation: 175,800.
Decrease of transboudary air pollution		State-owned company	1. PIF updated in June 2005; 2. Pre-feasibility study exists.
Reduction of risk of pollution of the Danube River and part of the territory of Bulgaria (in the case of flooding)	The company is in the process of restructuring.	State-owned company	1. PIF updated in June 2005; 2. Population benefiting directly from project: 100,000
Decrease of transboudary air pollution		State-owned company	1. PIF updated in June 2005; 2. Population directly benefit- ing from project implementa tion: 64,000.
Improving water resource management for the region		Municipal company, public enterprise	1. PIF updated in June 2005; 2. Population benefiting directly from project: 150,000.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
Republic of Serbia (continued)							
11	SR-8	WT	Improving the Sewage System of the Oil Refinery in Nis	HP	3.7	0	3.7
12	SR-10	WS	Equipment Supply for Re-Cultivation and Preservation of Ash and Slag Depot at Kolubara	HP	0.25	0	0.25
13	SR-11	WT	Construction of Sewage System in the Town of Vladicin Han	HP	0.4	0	0.4
14	SR-12	WS	Construction of New Vladicin Han and Surdulica Landfill along with Recycling Centre	HP	1.058	0	1.058
15	SR -14	WS	Rehabilitation and Remediation Measures for Inactive Waste Disposal Site Near the Town of Vranje	HP	0.22	0	0.22
16	SR-15	WS	Sustainable Integrated Solid Waste Management in Krusevac	HP	5.337	1.716	3.621
17	SR-16	WS	Investment into Measures of Technical Systems for Environmental Protection from the Existing Trash Dump in Nis	HP	6	0	6
18	SR-17	WS	Recultivation and Upgrading of the Existing Landfill, Badra, in Svilajnac	HP	0.828	0	0.179
19	SR -18	WS	Plant for Briquette Production in Kolubara	HP	6	0.18	5.82
20	SR-13	WS	Merged with SR-3 projects	REM			

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Reducing pollution of the Danube River and reducing health risks for the citizens of Novi Sad		State-owned company	1. PIF updated in June 2005; 2. Feasibility study exists; 3. Population directly benefiting from project implementation: 350,000.
	Reduction of transboundary air pollution		State-owned company	1. PIF updated in June 2005; 2. Population directly benefiting from project implementation: 64,000.
	Reduced pollution of waters, transboundary rivers		Local authority	1. PIF updated in June 2005; 2. Population directly benefiting from project implementation: 11,297.
	Reduction of risk of polluting water resources		Local authority	1.PIF updated in June 2005; 2. Population benefiting directly from the project: 35.000; 3. Feasibility study exists.
	Reduction of air and water transboundary pollution		Local authority	1. PIF updated in June 2005; 2.Population benefiting directly from project implementation: 80,000.
	Reduction of environmental pollution in the region	An annual 10% tariff increase is planned. At present, the tariff for citizens is EUR 0.024 per square metre.	Local authority	1. PIF updated in June 2005; 2. Population benefiting directly from project implementation: 80,000; 3. Feasibility study exists.
	Improvement of environmental conditions in the region	The current tariff for residential waste is EUR 0.022 per square metre. A tariff increase of 30% per year is planned. A combination of loan and grant is forseen.	Local authority and public enterprise	1. PIF updated in June 2005; 2. Population benefiting from project implementation: 257,341; 3. Feasibility study exists.
	Improvement of environmental conditions in the region	The current tariff is EUR 34 per tonne of disposal.	Local authority	1. PIF updated in June 2005; 2. Population benefiting directly from ptoject implementation: 38,000; 3. Feasibility study exists.
	Reduction of transboundary air polution	There is a plan to sell the final product (briquettes).	State-owned company	1. New PIF; 2. Feasibility study exists; 3. Population benefiting from project implementation: 64,000.
				Project removed

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
Kosovo (territory under UN interim administration)							
1	KO-1	WT	Construction of a Regional Wastewater Treatment Plant in Ferizaj	HP	41.963	4.196	37.767
2	KO-2	WT	Construction of Regional Wastewater Treatment Plant in Mitrovica	HP	104.104	10.41	93.694
3	KO-3	WT	Construction of a Regional Wastewater Treatment Plant in Pristina	HP	142.1	14.21	127.89
4	KO-5	Air	Improvement of Air Quality in Kosovo "A" and "B" Thermal Power Plants	HP, INTR	47	6	41
5	KO-7	WT	Construction of a Regional Wastewater Treatment Plant in Prizren	HP	82.697	8.825	73.872
6	KO-8	WT	Construction of a Regional Wastewater Treatment Plant in Gjilan	HP	50.314	5.031	45.283
7	KO-9	WT	Construction of a Regional Wastewater Treatment Plant in Gjakova	HP	63.103	6.31	56.793

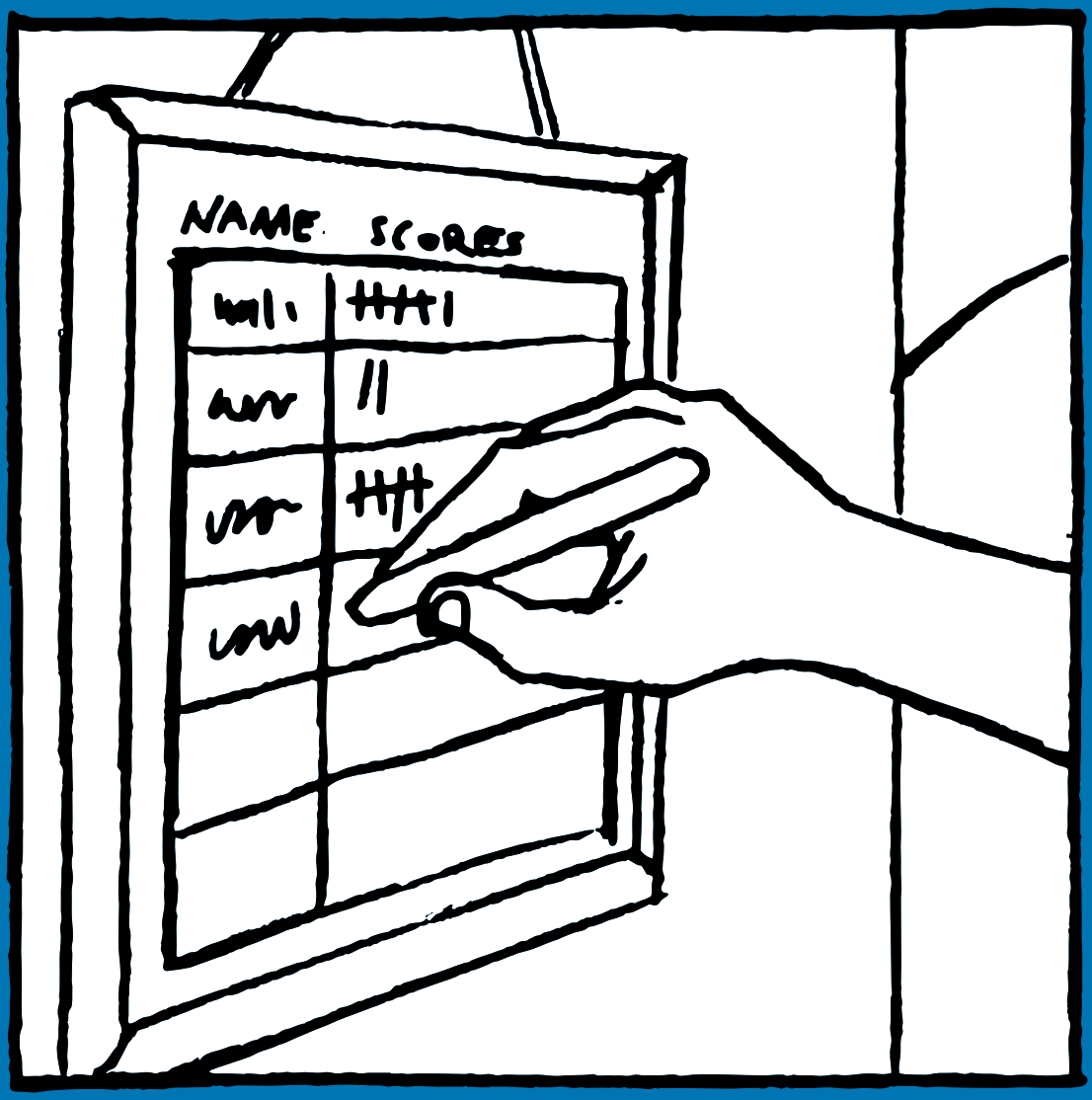
	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Reduction of cross-border water pollution (Black Sea, Aegean Sea)	A combination of grant and loan is foreseen. The revenues of the utility must be increased. The share of family income in water and wastewater expenditures is below reference values.	Public implementer is wastewater utility in Ferizaj. Ownership issues are not settled.	1. PIF updated in June 2005; 2. One of seven wastewater treatment plants to be constructed in Kosovo; 3. Population covered: 175,000.
	Reduction of cross-border water pollution (Iber Setnica and Danube rivers, Black Sea)	A combination of grant and loan is foreseen. The revenues of the utility must be increased. The share of family income in water and wastewater expenditures is below reference values.	Public implementer is wastewater utiltiy in Mitrovica. Ownership issues are not settled.	1. PIF updated in June 2005; 2. One of seven treatment plants to be constructed in Kosovo. 3. Population covered: 452,000.
	Reduction of cross-border water pollution (Setnica and Danube rivers, Black Sea)	A combination of grant and loan is foreseen. The revenues of the utility must be increased. The share of family income in water and wastewater expenditures is below reference values.	Public implementer is wastewater utiltiy in Pristina. Ownership issues are not settled.	1. PIF updated in June 2005; 2. One of seven wastewater treatment plants to be constructed in Kosovo; 3. Population covered: 760,000.
	Reduction of cross-border air pollution (with Serbia and Montenegro, and with the former Yugoslav Republic of Macedonia)	A combination of grant and loan is foreseen. There is a need to increase the collection of charges for electricity.	Public company	1. PIF updated in June 2005; 2. Around 700,000 affected; 3. Tendering process just completed for repair works on unit A3 for EUR 6 million; 4. Work expected to commence by end of September.
	Reduction of cross-border water pollution (Drini i Bardhe River, Adriatic Sea)	A combination of grant and loan is foreseen. The revenues of the utility must be increased. The share of family income in water and wastewater expenditures is below reference values.	Public implementer is wastewater utility in Prizren. Ownership issues are not settled.	1. New PIF; 2. One of seven wastewater treatment plants to be constructed in Kosovo; 3. Around 381,000 inhabitants to be covered.
	Reduction of cross-border water pollution (Kriva Reka Morava and Danube rivers, Black Sea)	A combination of grant and loan is foreseen. The revenues of the utility must be increased. The share of family income in water and wastewater expenditures is below reference values.	Public implementer is wastewater utiltiy in Gjilan. Ownership issues are not settled.	1. New PIF; 2. One of seven wastewater treatment plants to be constructed in Kosovo; 3. Around 204,000 inhabitants to be covered; 4. Pre-feasibility study exists.
	Reduction of cross-border water pollution of water (Drini i Bardhe River, Adriatic Sea)	A combination of grant and loan is foreseen. The revenues of the utility must be increased. The share of family income in water and wastewater expenditures is below reference values.	Public implementer is wastewater utiltiy in Gjakova. Ownership issues are not settled.	1. New PIF; 2. One of seven wastewater treatment plants to be constructed in Kosovo; 3. Around 258,000 inhabitants to be covered; 4. Prefeasibility study exists.

TABLE 22

Presentation of lists of priority projects (continued)

NO.	PIF NO.	SECTOR WS-WASTE WT-WASTE WATER, AIR	PROJECT TITLE	CATEGORY	TOTAL COST (MILLION EUR)	OWN RESOURCES/ CO- FINANCING (MILLION EUR)	FUNDS NOT SECURED (MILLION EUR)
Kosovo (territory under UN interim administration) (continued)							
8	KO-10	WT	Construction of a Regional Waste-water Treatment Plant in Peja	HP	68.963	6.896	62.067
9	KO-11	Air	Establishment of the National Network for Permanent Air Quality Monitoring	HP	2.5	0.5	2
10	KO-12	WT	Wastewater Treatment Of Pb-Zn Artana Mine-Trepca	HP	1.5	0	1.5
11	KO-13	WS	Rehabilitation and Closure of Tailing Area in MIP-Trepca	HP	4.5	0	4.5
12	KO-14	WS	Rehabilitation of Ash Landfills of the Power Plants Kosova "A" and "B": Transport of Ashes from the Existing Landfills to the Mirash and Bardh Mining Sites	HP	3.5	0	3.5
13	KO-15	WS	Rehabilitation of Ash Landfills of the Power Plants Kosova "A" and "B": Complete Re-cultivation of Existing Ash Landfills	HP	1.5	0	1.5
14	KO-16	WS	Rehabilitation of Ash Landfills of the Power Plants Kosova "A" and "B": Method of Hydrosemy	HP	1.5	0	1.5
15	KO-6	WT	The "Dragacine" System for Water Supply, Irrigation and Industry	REM - project KO-10			
16	KO-4	WS	Replaced by KEK Waste Projects	REM - project replaced by KO14,15,16			

	REGIONAL IMPACT OF THE PROJECT ON ENVIRONMENT	FINANCIAL ISSUES	OWNERSHIP ISSUES	OTHER ISSUES
	Reduction of cross-border water pollution (Drini i Bardhe River, Adriatic Sea)	A combination of grant and loan is foreseen. The revenues of the utility must be increased. The share of family income in water and wastewater expenditures is below reference values.	Public implementer is wastewater utiltiy in Peja. Ownership issues are not setteled.	1. New PIF; 2. One of seven wastewater treatment plants to be constructed in Kosovo; 3. Around 323,000 inhabitants to be covered.
	Improved air quality management, influencing the whole region		Public ownership	1. New PIF; 2. Around 2.5 million inhabitants benefiting from project implementation; 3. No properly developed monitoring system currently in Kosovo.
	Reduction of cross-border water pollution (Sitnica, Ibar, and Danube rivers, Black Sea)		Public enterprise	1. New PIF; 2. Polluted wastewater discharged directly to the Marec River; 3. Around 100,000 to benefit directly from project implementation; 4. Feasibility study exists.
	Reduction of cross-border water pollution (Sitnica, Ibar, and Danube rivers, Black Sea)		Public enterprise	1. New PIF; 2. Protection of Sitnica River from heavy metals; 3. Pre-feasibility study and EIA exist.
	Reduction of cross-border air and water pollution (Sitnica, Ibar, and Danube rivers, Black Sea)	EUR 1 million needed for safe fly ash disposal at the Obiliq Mirash Mine	Public enterprise	1. New PIF; 2. Around 700,000 inhabitants to benefit; 3. Entire ash transfer system implemented at a cost of EUR 3.5 million. 4. Other preparation for safe fly ash disposal needed for Obiliq Mirash Mine.
	Reduction of cross-border water pollution (Sitnica, Ibar, and Danube rivers, Black Sea)		Public enterprise	1. New PIF; 2. Around 700,000 inhabitants to benefit from project; 3. Prefeasibility study exists.
	Reduction of cross-border water pollution (Sitnica, Ibar, and Danube rivers, Black Sea)		Public enterprise	1. New PIF; 2. Around 700,000 inhabitants to benefit from the project; 3. Prefeasibility study exists.
				PIF not updated
				PIFs updated as KO14,15,16



Chapter 6
Foreign Sources of Finance

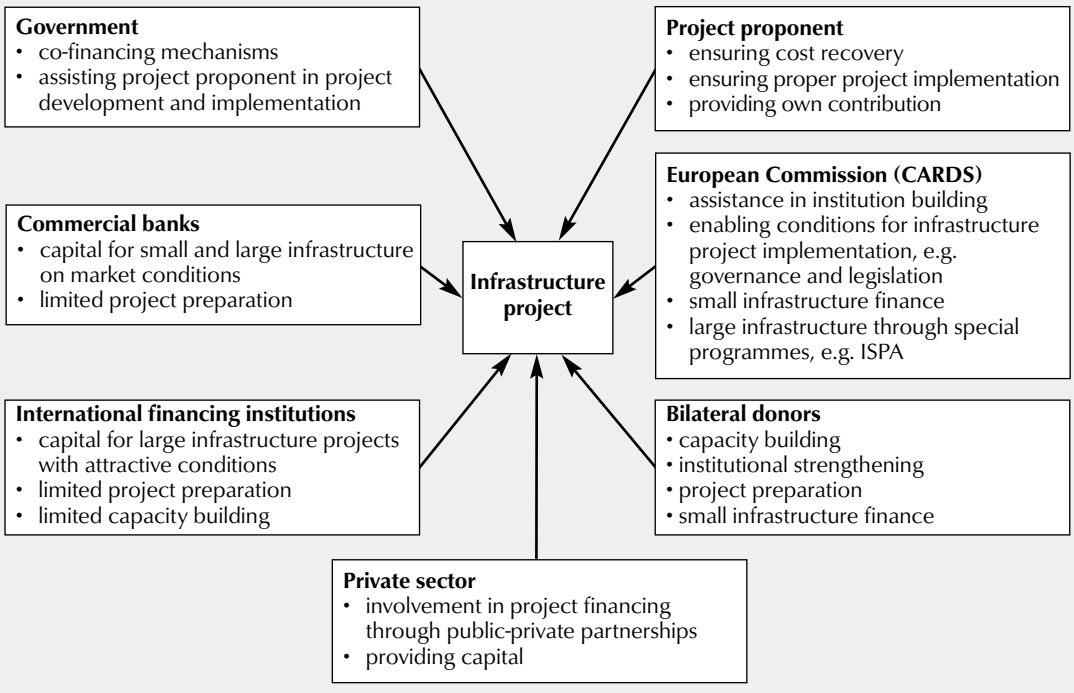
Chapter 6:
Foreign Sources of Finance

As discussed in previous chapters, securing funds for implementing environmental infrastructure projects is a very complicated process. Often, a project proponent is unable to provide investment capital for the project and external assistance is needed. Additionally, the process of EU integration is identifying more infrastructure necessary to comply with the requirements of EU directives. Investment project proponents can choose from a wide range of financial products, including grants, loans, credit guarantees, equity finance, bonds and different schemes for involving private sector capital such as public-private partnership. Project proponents in SEE countries are primarily seeking financing for large-scale infrastructure through grant support, loans and credit guarantees. The preparation of project application for financing is a lengthy and costly process. It is very important to note that financial assistance can be obtained from foreign sources not only for capital investment but also for project preparation, such as technical assistance for feasibility studies.

When a project proponent prepares the financial strategy for an environmental investment project, one important step is identification of all potential domestic and foreign finance sources

BOX 23

The roles of different stakeholders in financing infrastructure projects.



available. A single project can be financed from several sources, and donors have varying purpose and conditions for providing funding. At present, domestic sources of funding in SEE countries are under development and the capability of project proponents to secure own resources is very limited. Therefore, it might be expected that foreign sources of finance from the European Commission, bilateral donors and international financing institutions play an important role in capital financing infrastructure projects in the SEE region.

Identification of possible sources of donors can be done on two levels: national/regional strategies, which identify and prioritise a list of projects; and on the local project level, where details of possible sources of finance are being identified.

This chapter aims at presenting an overview of donor activities in SEE and their involvement in environmental infrastructure projects. The chapter is supported by Annex 6, which provides detailed information about funding mechanisms of donors and international financing institutions providing assistance to SEE (See Box 23).

Sources of grant support

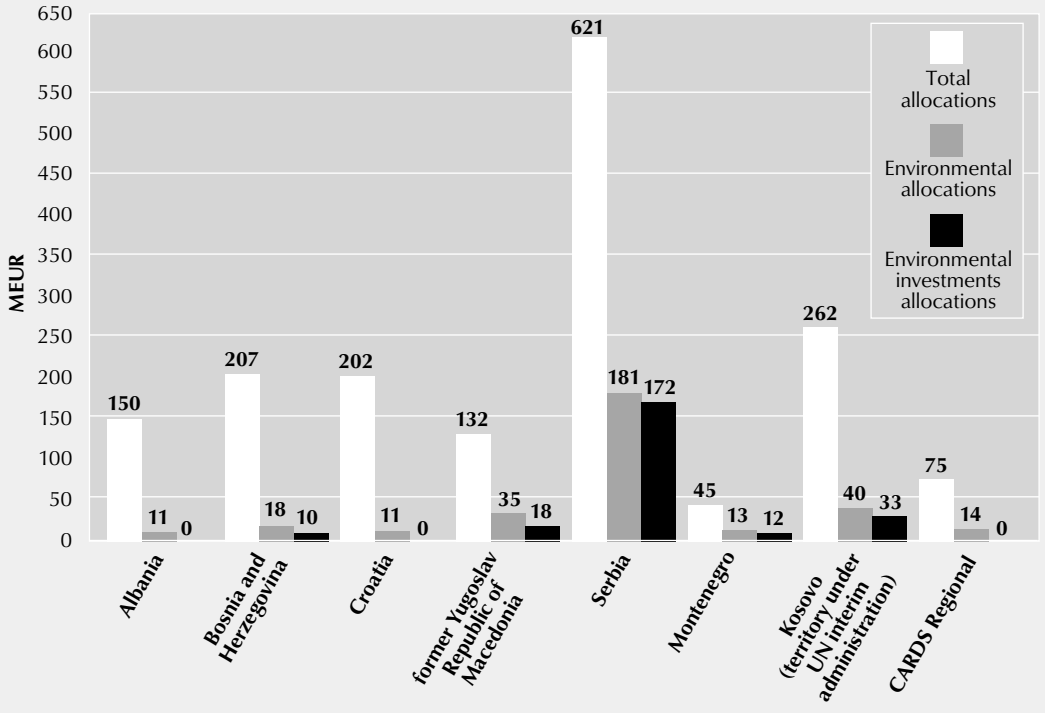
Financial assistance from the European Union

Financial assistance from the European Union to the SEE countries is provided mainly through the Community Assistance for Reconstruction, Development and Stabilisation (CARDS) programme. CARDS supports both national projects and regional initiatives, which aim at identifying and preparing environmental projects. Available to pre-accession countries is the ISPA fund, which opened up for Croatia in January 2005.

The CARDS programme was established in 2000 to streamline aid for supporting the Stabilisation and

FIGURE 9

CARDS allocation to SEE countries by recipient (2002-2004)



Source: CARDS Annual Programmes 2002, 2003, 2004, CARDS Regional Multi-annual Indicative Programme 2002-2004.

Note: Description of projects included in the analyses can be found in the methodology.

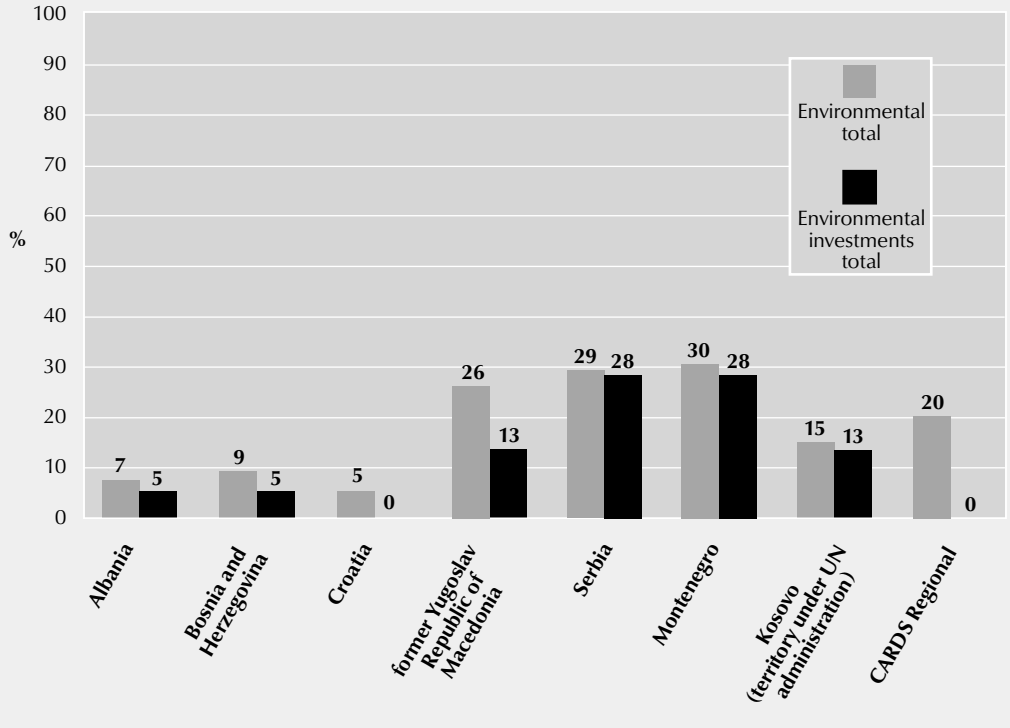
Association Process (SAP) to SEE countries and implementing the Stabilisation and Association Agreements (SAAs). For the period of 2000-2006, EUR 4.6 billion was allocated for five priority sectors. Support for environmental projects is integrated not only under environment and natural resources priority sectors, but also under democratic stabilisation, which involves refugee return; economic and social development with local infrastructure development; and administrative and capacity building with public administration reform.

The CARDS instrument provides grants and was designed to support primarily institution-building to improve governance, legislation and, to a lesser extent, investments. In Albania, Bosnia and Herzegovina, and Croatia, EU delegations act as managing authorities of the CARDS programme. The European Agency for Reconstruction (EAR) manages the national programmes for the former Yugoslav Republic of Macedonia and Serbia and Montenegro including Kosovo (territory under UN interim administration). CARDS financial assistance is provided in the forms of contracts for service, supply and work through tenders or via calls for proposals. In order to provide information on the volume of EC grants for environmental improvements in SEE, allocations in the CARDS Annual Programmes[1] and Regional Multi-annual Indicative Programme[2] between 2002 and 2004 were analysed. The total allocated amounts and their shares for supporting environmental projects by recipient are indicated in Figure 9.

Comparing the percentage share of CARDS commitments for environmental purposes to the total CARDS envelope between 2002 and 2004, it can be concluded that Serbia and Montenegro including Kosovo and the former Yugoslav Republic of Macedonia allocated about one-fourth of total CARDS support for environmental projects. They are followed by Bosnia and Herzegovina and Albania at nine percent and seven percent respectively. Croatia dedicated only five percent of their total allocation to environment (See Figure 10). However, the high allocation given Serbia is the result of projects involving a major overhaul of the Nikola Tesla A3 thermal power plant amounting to

FIGURE 10

Share of CARDS allocation in SEE countries (2002-2004)



EUR 113.6 million. From the CARDS regional budget, approximately EUR 14.8 million was devoted to regional environmental projects in the form of capacity building and other technical assistance activities.[3] An average of 80 percent of the environmental allocation was devoted to environmental investment. By excluding support for the energy sector, only negligible amounts remain. The devoted amount is showing an increasing tendency, however, from EUR 5 million to EUR 28 million to EUR 36 million between 2002 and 2004.

As an example, in the CARDS budget for 2002, Kosovo (territory under UN interim administration) allocated about EUR 1 million for the rehabilitation of the ash dumps at Kosovo's two main power stations near Pristina. The primary objective of the cleanup project was minimisation of current environmental and health problems due to excessive amounts of dust in the air.

The EC also provides support to large-scale infrastructure projects in environment and transport sectors in the candidate countries. The main tool for this assistance is the Instrument for Structural Policies for Pre-Accession (ISPA). In the SEE region, this is relevant only for Croatia, which became eligible from January 1, 2005. For Croatia, allocation in 2005 and 2006 is EUR 25 million and EUR 35 million respectively; of the total, environment and transport sectors were provided with EUR 30 million each. For the environment sector, infrastructure projects in water supply, wastewater treatment, waste management and air protection sectors may be supported through ISPA (See box 24).

The European Commission also supports project preparation facilities, the principal roles of which are identification, prioritisation and preparation of investment projects, while simultaneously attracting possible financiers. In most cases, project preparation is coordinated or even requested by donors, such as some IFIs. In this way, the leverage effect of EC assistance can be increased considerably.

In 2002, the EC allocated EUR 1.7 million from CARDS Regional for the establishment of the Municipal Finance Facility for Transport and Environment to assist small municipalities in reconstruction and infrastructural investment. The main focus was strengthening the organisational and financial structure of local utilities and cities in SEE. Within the project, training on management of available resources was conducted for municipality and banking sector staff. In 2002-2003, the finance facility focused on Croatia and Serbia as pilots, and support was extended to other SEE countries in 2004-2005.

The Municipal Finance Facility was managed by the EBRD, and the EU was present in the steering committee as a supervisor. The EBRD developed criteria for loan application and provided loans to selected municipalities to finance priority infrastructure water, wastewater, urban transport, solid waste and district heating pro-

BOX 24

Croatian ISPA strategy

The Croatian national ISPA environmental strategy includes priority projects for ISPA co-financing in the waste, water and air sectors. The list of projects was prioritised, and selected projects are identified as those requiring early implementation; other projects on the list are for later development and may be co-financed from other sources in future.

The national ISPA environmental strategy defines financing sources available for environmental infrastructure projects, including:

- the budget of the central government;
- budgets of local and county governments, funds of public utility companies owned by local government providing municipal services (e.g. tariffs for municipal services, concession charges, special earmarked charges);
- the Environmental Protection and Energy Efficiency Fund;
- Croatian Waters funds;
- national and foreign loans from IFIs, e.g. the EBRD, IBRD, EIB, the Croatian Bank for Reconstruction and Development, and commercial banks — both local and international;
- private capital, mostly through concession agreements, especially with respect to public wastewater discharge and waste disposal systems (B.O.T. models);
- EU pre-accession funds (i.e. PHARE, ISPA); and
- other sources (e.g. joint ventures, public-private partnerships, grants).

BOX 25

Municipal Finance Facility in Croatia

For Croatia, the EBRD set up long-term credit lines within the framework of the Municipal Finance Facility. Funding was channelled to Croatian commercial banks as financing intermediaries, and the facility provided long-term funds through local banks for small and medium-sized municipalities (of population 150,000) to implement infrastructure projects.

In addition, technical assistance was available for project preparation and with creditworthiness enhancement programmes, the creditworthiness of small municipalities was enhanced. Through the on-lending scheme, the capacity of local banks in municipal finance was improved as well.

The total contribution of the EBRD amounted to EUR 65 million, including credit lines of EUR 50 million, with the remaining EUR 15 million allocated to two to four Croation banks for risk sharing. In 2003, EUR 20 million was committed to Zagrebacka Banka; the EC committed EUR 1 million from CARDS Regional, and the government of the Netherlands provided EUR 2.5 million. For creditworthiness improvement programmes, EUR 400,000-550,000 was allocated for small municipalities and an additional EUR 300,000-450,000 was devoted to technical cooperation on advising local banks.

The facility's priority was to develop municipal infrastructure in line with environmental, health and safety standards. Types of investments projects included: district heating, urban transport, solid waste, sewerage systems, and the quality of drinking water. Each sub-loan was subject to environmental due diligence and the municipalities were required to conduct public consultations.

Sources: CARDS Regional, PPC website, the EBRD website.

BOX 26

Case study: DISF support for wastewater project in Croatia

The Sewerage and Sewage Treatment Investment Project in Karlovac, Croatia was included in the DABLAS project pipeline. As the EBRD expressed interest in financing it, the Danube Investment Support Facility (DISF) assisted in the project preparation. The total estimated investment required for water supply and wastewater is HRK 640 million (approximately EUR 87.5 million). For the implementation of the overall project long-term and short-term investment programmes were developed. The long-term investment programme identified a total capital cost of around EUR 50 million and will run from 2010 to 2020. The capital cost of the prioritised (i.e. short-term) investment programme is EUR 25 million and will be undertaken between 2005 and 2009. Due to financial constraints, wastewater investment was given absolute priority by project developers when preparing the procurement and implementation strategy. It is assumed that national and/or international donors will finance the water supply component separately.

Developers divided the wastewater part of the project into four types of procurement packages: supply and install, goods, works, and consultancies. Each package will be funded by one source when possible. According to the proposed financial package of the wastewater project component, the EBRD loan is expected to cover EUR 12.5 million, grants including the ISPA fund around EUR 7.5 million, and the Croatian Waters utility company together with the city of Karlovac would provide around EUR 5.2 million. Project implementation foresees improvement to surface water quality and ensuring the future integrity of groundwater reserves for supplying potable water. Other types of improvements will be achieved in operating efficiency by reducing the disruption of drinking water supply and sewer networks.

jects. The loan had to be co-financed by municipalities' own sources (See Box 25).

Another example of the operational facilities is the Danube Investment Support Facility (DISF) established in 2004 by CARDS regional support. Its primary goal is to support environmental investment in the Danube region by facilitating and accelerating IFI financing while providing technical assistance to project proponents. DISF is focusing on the region of the Central Danube Basin and its effluents, and is therefore active in Bosnia-Herzegovina, Croatia, and Serbia and Montenegro. Facility activities focus on the water sector, particularly on priority municipal wastewater treatment. Selected projects are in line with national environmental action plans (NEAPs) and the SAP, are considered priority water-pollution abatement projects, or are other projects in the Danube River Basin with high environmental impact.

DISF facilitates cooperation between IFIs (mainly the EBRD, EIB and the World Bank) and CARDS in the identification and preparation of environmental investment projects for IFI financing. It implies that DISF presents the selected project to IFIs and, should the project be chosen by IFIs and have potential for financing, the facility proceeds with project preparation. DISF carries out feasibility and other relevant studies on the selected projects and at the same time builds the capacity of beneficiaries in project preparation (See Box 26).[4]

The European Commission is planning to establish two additional project preparation facilities for the SEE region. The first facility would exclusively support environmental projects, with its first task to facilitate project preparation for municipalities and public-private partnerships in the environmental sector with a total budget of approximately EUR 1.8 million. The second facility will have a total budget of approximately EUR 7 million for three sectors, including the environmental sector. The PPFs will aim at preparing projects to a degree that they can be delivered to IFIs.

The EC is channelling assistance to the SEE region in a more indirect form by facilitating regional initiatives such as the Danube-Black Sea Initiative (DABLAS). DABLAS was established with the aim of capturing water-related investments in the Danube and Black Sea regions. The DABLAS task force provides a platform for cooperation between IFIs, donors and beneficiaries to protect water and water-related ecosystems of the Danube and the Black Sea. The task force gathers the Black Sea Commission, the International Commission for the Protection of the River Danube (ICPDR), IFIs, interested EU member states, other bilateral donors, regional and international organisations with relevant functions, and the civil society. The Secretariat is operated within DG Environment of the European Commission.

The primary objective of the task force is coordination of financing activities through identifying priority objectives common to the region. The task force conducts project screening and prioritisation as well. As of 2005, 30 water priority projects were identified by the task force and nine have been fully funded. In addition, 17 new projects have been identified through the Danube Investment Support Facility (DISF), the Priority Environmental Investment Programme (PEIP), the Black Sea Project Broker, the PPC officer for the Balkans, the ISPA Strategy for Croatia, and by the countries themselves. In 2005-2006, DABLAS will continue development of the project pipeline and technical assistance.

From 2007, CARDS will be replaced by IPA (Instrument for Pre-Accession). As this is written, the instrument is undergoing changes, and details of the assistance provided are not yet known.

Bilateral Donors

Bilateral donors, who channel significant amounts to support reconstruction and stabilisation processes in the region, are important sources of finance for SEE countries. Bilateral donor institutions are primarily political institutions, implying diverse strategies, priority areas and budgets, which can also change abruptly depending on altering goals of foreign policy support. External aid is provided mainly in the form of grants via development agencies or selected ministries; some provide loans as well. Grant support is provided primarily for capacity building, institutional strengthening, project preparation and, in some cases, direct investment. Bilateral donors are mainly involved in financing capital investment for small-scale infrastructure. However, they also play a vital role in providing grants for large infrastructure investments. In SEE countries, where local governments are often unable to secure co-financing on investment loans, bilateral grants can make possible the very reception of the loan in the first place. Furthermore, with grants, pressure to increase tariff levels to repay the loan can be mitigated.

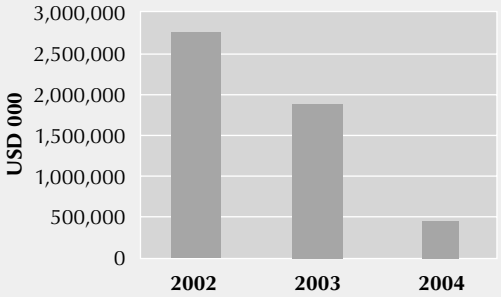
Trends in bilateral donors commitments

This subchapter presents an overview of bilateral environmental support, in particular, to show how the total financial environmental assistance is shared by environmental sectors, beneficiary countries and donor countries. The calculations are based on the database maintained by OECD on official development assistance (ODA) and official aid (OA) grants.

When comparing total ODA/OA bilateral assistance to the SEE region from 2002 to 2004, a decreasing tendency is shown from USD 2.59 billion in 2002 to USD 421 million in 2004 (See Figure 11). One explanation of the sharp decline in bilateral support could be a coordinated shift of assistance to other regions due to progress in stabilising the political situation and revitalising the economy. Typically, when a country has achieved a certain degree of economic and political stability, grant-giving donors move away, while the role of loan-providing financial institutions such as IFIs and commercial banks increases. When comparing the total allocation and allocation to environmental sector projects, an interesting trend can be seen (See Figure 12). While

FIGURE 11

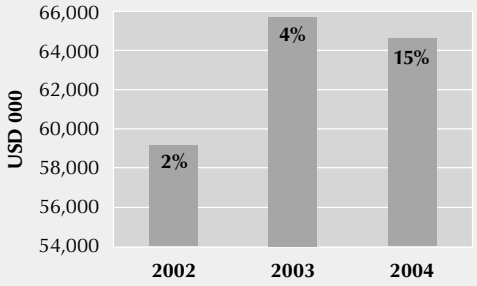
Total bilateral ODA/OA allocation to the SEE region (2002-2004)



Source: Calculation based on OECD database.
Further information on base data used can be found in the methodology section.

FIGURE 12

Bilateral ODA/OA environmental allocation to SEE (2002-2004)



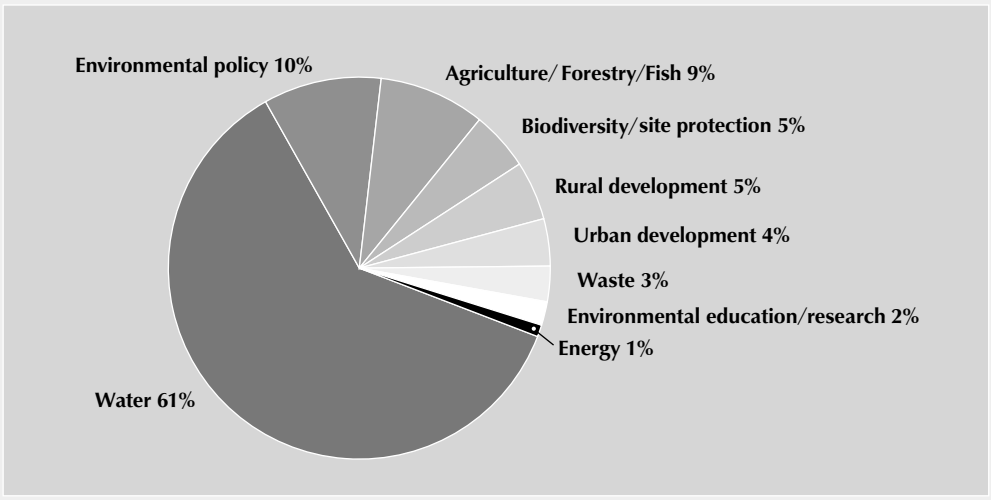
Source: Calculation based on OECD database.
Further information on base data used can be found in the methodology section.

overall assistance to the region decreased, the share of environmental projects increased from 2 percent in 2002 to 15 percent in 2004, which shows the growing importance of environmental projects among bilateral donors.

Environment was supported under projects in sectors such as water, waste, energy, environmental policy, education and research, agriculture, forestry, and urban and rural development. Between 2002 and 2004, two-thirds of total funding was directed to water sector projects. Environmental policy and management was supported by 10 percent; waste and the energy sector received less than five percent combined (see Figure 13).

FIGURE 13

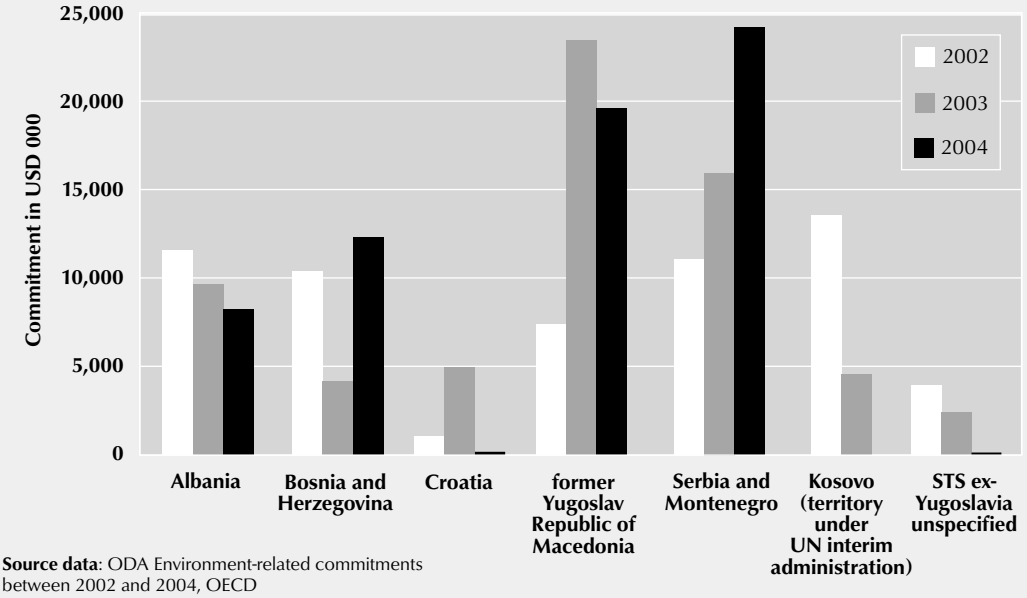
Bilateral commitments by environmental media (2002-2004)



Source: Calculation based on ODA database on environment-related allocation between 2002-2004, OECD

FIGURE 14

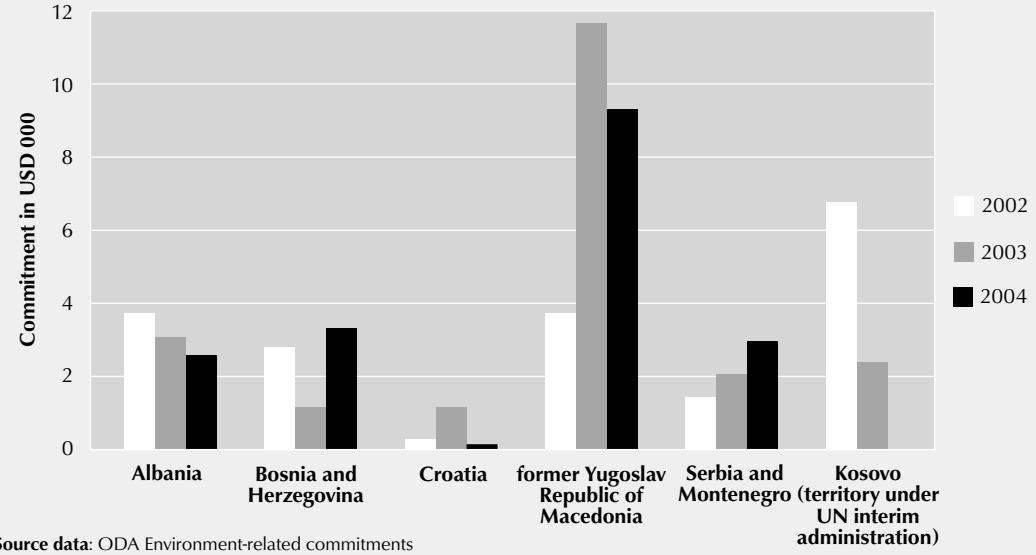
Share of environment-related commitments by recipient (2002-2004)



Source data: ODA Environment-related commitments between 2002 and 2004, OECD

FIGURE 15

Share of environment-related commitments by recipient per capita (2002-2004)



Source data: ODA Environment-related commitments between 2002 and 2004, OECD
Note: Population data used in the calculation was taken from the World Bank website.

By looking at bilateral support channelled to the different beneficiary countries between 2002 and 2004, it can be seen that Serbia and Montenegro and the former Yugoslav Republic of Macedonia benefited from the highest totals: USD 50.9 million and USD 50 million respectively. The former Yugoslav Republic of Macedonia received the highest amount per capita, with an average of USD 8,000. This is followed by Kosovo (territory under UN interim administration) and Albania at USD 4,000 and USD 3,000 respectively. Bosnia and Herzegovina and Serbia and Montenegro both received around USD 2,000 per capita, whereas Croatia benefited from the smallest amount at less than USD 500 per capita (see Figure 14 and Figure 15).

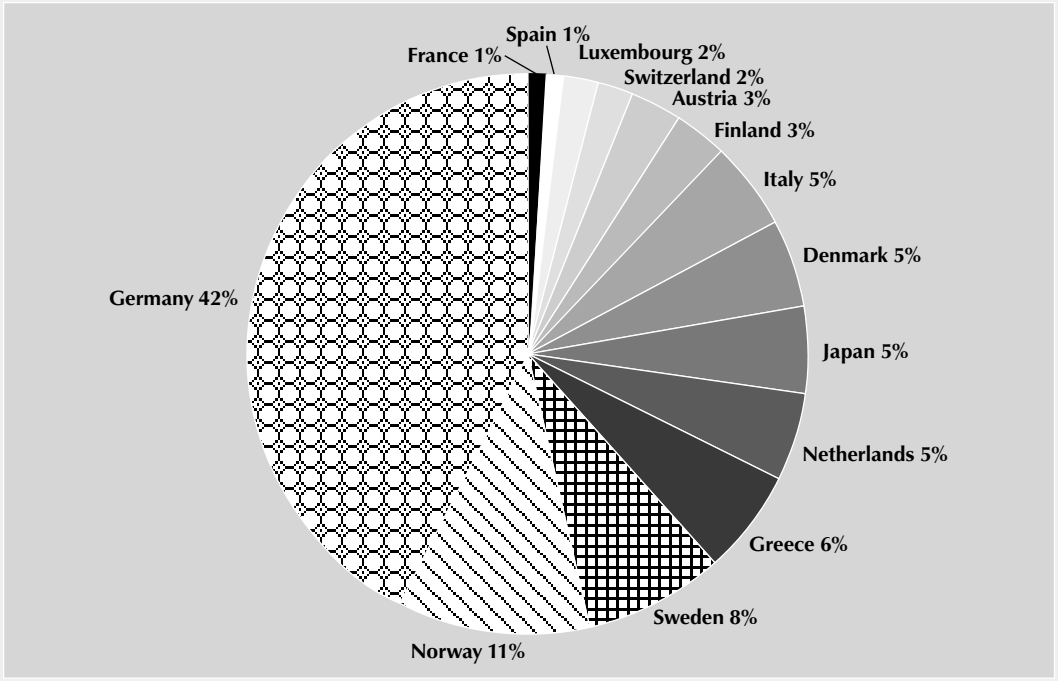
According to the OECD database, the following countries are providing bilateral ODA/OA grant support for environment-related projects to SEE countries: Germany, Norway, Sweden, Greece, Netherlands, Denmark, Italy, Finland, Austria, Switzerland, Luxembourg, Spain, France, the United Kingdom, Ireland, Belgium, Japan and the United States. Between 2002 and 2004, the majority of bilateral financial contribution — around 40 percent — was provided by Germany. Other significant bilateral donors include: Norway, Sweden, and Greece (see Figure 16).

Available assistance

Three-quarters of the donor institutions presented in Table 23 assist in water-related issues and approximately half contribute to waste sector projects. Technical assistance for project preparation is available from most countries. Financing is provided in the form of grants, except for Kreditanstalt fur Wiederaufbau (the KfW Group), which also offers loans. In the majority of cases, the private sector is also eligible for grant support. Generally flexible and dependent only on the project itself, a maximum size for eligible projects is set by only a few donor organisations. A self-contributing co-financing requirement is emphasised

FIGURE 16

Share of environment-related commitments by bilateral donors (2002-2004)



Source data: ODA Environment-related commitments between 2002 and 2004, OECD

Note: Donor countries with less than 1 percent commitment are excluded.

TABLE 23

Overview of assistance provided to SEE region by bilateral donor institutions

Donor Country	Donor institution	Beneficiary	Water	Waste	Energy	Technical assistance	Grant	Public sector	Private sector	Max. project size — flexible (million EUR)	Co-finance requirement
Austria	ADA	A,B,M,S	√	√	√	√	√	√		2	√
Czech Republic	MoE	S	√	√	√	√	√	√		0.7	
Italy	IMET	A,B,M,S			√* not infrastructure	√	√	√	√	0.5	
Germany	BMU	C,M,S	√* not infrastructure	√* not infrastructure			√	√		0.25	√
Germany	BMZ	A,B	√	√	√* not BiH		√	√	√		
Germany	KfW Bank	A,B,C, M,S	√	√	√* not M	√	√* + Loans	√	√		
Greece	MoFA	A,B,M,S	√	√	√		√* interest rate subsidies	√	√		
Netherlands	VROM	A,B,C, M,S			√* not infrastructure	√* via EBRD	√	√		0.1 1* jointly with MoFA	
Netherlands	MoFA	A,B,M	√	√	√	√	√	√	√	1* jointly with VROM	
Norway	NMoFA	A,B,C, M,S	√	√		√	√	√			
Sweden	Sida	A,B,M,S	√	√	√	√	√	√	√		√
Switzerland	Seco	A,B,M,S	√	√	√	√	√	√			
Switzerland	SDC	A,B,M,S, C* only Knin region	√	√	√	√	√	√	√	0.65	
USA	USTDA	A,B,C, M,S	√	√	√	√	√	√	√		√
USA	USAID	A,B,C, M,S	√			√	√	√			
Japan	JICA	A,B,C, M,S	√	√	√	√	√	√			

Letter codes: A = Albania; B = Bosnia and Herzegovina; C = Croatia; M = former Yugoslav Republic of Macedonia; S = Serbia and Montenegro

Based on information in the donor fiches found in Annex 6.

by Austria and Germany; however, more donor institutions require some form of financial commitment by project proponents. Detailed description on donor institutions can be found in Annex 6.

As can be seen in Figure 16, Germany channels considerable support to environmental related projects in the region. Institutionally, the Federal Ministry for Economic Cooperation and Development (BMZ) and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) act as donor agencies. In several environmental support programmes, the KfW Group and the Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) act under the commission of BMZ. Details of their support can be found in Annex 6.

In SEE, the focus area is cross-border cooperation with special attention to river basin protection and other water management measures. Three major REReP projects of EUR 1.8 million were funded between 2000 and 2004 with GTZ technical assistance: the first project aimed at the establishment of an environmental protection fund in Croatia; the second, at development of harmonisation strategies with EU standards; and the third, at financing NGO activity. The traditional bilateral cooperation assistance is coordinated by the Federal Ministry for Economic Cooperation and Development. Within the framework of bilateral cooperation, environmental protection measures were financed in Albania, in particular wastewater treatment projects. In the former Yugoslav Republic of Macedonia, support was provided for the development of local environmental action plans and water authorities, among others.

In Serbia, aside from wastewater management and water resource measures, financing was directed to district heating projects. In Montenegro and Croatia, coastal development master plans were implemented with German support. In the Republic of Montenegro water supply and wastewater systems in coastal areas were improved and a hydropower plant rehabilitated. In the future for Serbia and Montenegro including Kosovo (territory under UN interim administration), an energy efficiency facilitation fund will be provided to support and finance small- and medium-sized energy efficiency measures for both public and private sectors. In Kosovo, water supply and wastewater projects were funded, as were filter systems to reduce pollution deriving from energy generation. And finally, with BMU aid, a project on drafting regional plans for water supply and wastewater disposal on the islands Drvenik Veli and Mali in Croatia was financed.

Aside from the traditional donor countries of old EU member states, the role of new member states changed from that of recipient to donor country after the accession to the EU. These countries are increasingly taking part in assistance programmes in SEE countries. Slovakia, Slovenia and the Czech Republic provide support through REReP (the Regional Environmental Reconstruction Programme); for example, the Czech Ministry of Environment provides ODA to Serbia and Montenegro, their only priority country in the SEE region. The budget for assistance to infrastructure projects in the fields of waste management, energy efficiency and drinking water supply is expected to increase. Small-scale environmental infrastructure projects such as the maintenance and recultivation of the Jovanovac Waste Dump near Kragujevac, Sumadija County, have already been financed. The Czech Republic ministry of the environment contributed EUR 500,000 in 2005 to the recultivation of the waste dump in Mojkovac in the Republic of Montenegro, applying European technical, economic and environmental standards.

Other examples of projects funded by EU countries include:

- The Austrian Development Agency supported a geothermal energy project in Kocani, former Yugoslav Republic of Macedonia, and provided technical assistance to solar thermal energy projects in Albania and the former Yugoslav Republic of Macedonia; and
- The Italian Ministry of Environment and Territory supported the Pancevo Action Programme, which aims to support local institutions and public enterprises in developing prefeasibility studies towards remediation of environmental criticalities, with priority areas air, soil, water and waste.

Outside of the EU, Japan, the United States, Norway and Switzerland are significant donors to the region. Some examples of their projects in the region are:

- The Norwegian Ministry of Foreign Affairs supported a project connecting the industry and population of the city of Vrbas to the sewerage system as part of the regional Kula-Vrbas sewerage system;
- The Swiss State Secretariat for Economic Affairs, together with the German KfW contributed DM 38 million to a comprehensive water-supply investment programme in Pogradec, Albania, toward modernisation of the city water supply. The Swiss financing sup-

ports the population of Pogradec and neighboring communities with reliable access to clean water. KfW will build a sewage treatment plant to rehabilitate the sewage system; and

- The United States Trade and Development Agency (USTDA) funded several environmental feasibility studies in SEE, such as the "Tuzla and Kakanj Power Plant Rehabilitation Study and Financing Plan" in Bosnia and Herzegovina, in which the USTDA co-financed part of the feasibility study on the rehabilitation of two thermal power plants. The total cost of the study was USD 644,557, of which USDTA provided USD 483,418 and the remaining amount was covered by a selected US firm.

Sources of loan support

International financing institutions are international banks providing financial support primarily to countries with economies in transition. Financial support is usually provided in the form of soft loans, meaning that payback conditions are more favourable than those of commercial loans. IFIs also provide technical assistance for project preparation. Therefore, these financial institutions are considered to play a significant role in supporting environmental investment infrastructure development in SEE. The most important IFIs for the SEE region are presented below.

The European Bank for Reconstruction and Development

The EBRD provides funds for investment to help build market economies. The EBRD also provides project financing for banks, industries and businesses. All EBRD-financed projects are designed to be environmentally sound. Other projects, such technology upgrades which improve environmental efficiency, have resulted in environmental benefit.

The EBRD has been active in SEE countries for several years and is progressively increasing its long-term lending in the region, financing projects

BOX 27

Overview of EBRD activities in SEE countries

- In Albania, in the infrastructure sector, the EBRD provides assistance to the restructuring of the energy sector and road rehabilitation projects with sovereign-guaranteed financing. Water supply, urban transport and solid waste management are the bank's foci in relation to environmental infrastructure. One of the priorities of the EBRD is development of a viable project pipeline in the municipal and environmental infrastructure sectors.
- In Bosnia and Herzegovina, focal areas include the municipal infrastructure sector and institutional strengthening at the level of operating companies. In addition, the implementation of the Electric Power Reconstruction Project and the Thermal Power Upgrade Project are of high priority: These projects strive to foster reforms and restructuring in the energy sector to establish grounds for privatisation and application of European standards.
- In Croatia, the EBRD has substantially increased its involvement in the environmental infrastructure sector on the national level. One priority is to reach small municipalities with local banks and to encourage private sector involvement in investments. The EBRD will assist large- and medium-sized municipalities to develop ISPA projects. Some examples of environment and municipal infrastructure project loans are the Zagreb Solid Waste Management Programme (EUR 50 million) and INA Rijeka Refinery Environmental Rehabilitation (EUR 36 million), dealing with upgrades to wastewater treatment and hazardous waste management facilities.
- In the former Yugoslav Republic of Macedonia, EBRD priority areas include transport, energy and municipal environmental projects. The EBRD supports the privatisation and restructuring process in the energy and transport sectors by promoting projects of regional importance, such as regional electricity and gas interconnections and road network rehabilitation. Furthermore, projects in water infrastructure are supported by municipal guarantee. The Macedonian Municipal and Environmental Action Programme dealing with construction, upgrade and extension of water and wastewater infrastructure in five utilities with a budget of EUR 62 million is one example.
- In Serbia and Montenegro, energy, transport and municipal infrastructure projects once dominated the portfolio, but the EBRD has gradually extended its focus to private-sector initiatives. To date, the EBRD has placed special emphasis on supporting infrastructure projects with regional importance and on restructuring in the gas, oil and electricity sectors. In Kosovo, the EBRD focuses on municipal infrastructure and energy sectors. The bank provides assistance to SMEs and assesses opportunities for technical cooperation in the energy sector.

related to SMEs, transport infrastructure, energy efficiency, natural resource management, etc. In the area of environment and municipal infrastructure, the EBRD focuses on providing support to projects in water supply, wastewater collection and treatment, solid waste management, district heating, natural gas distribution, and urban public transport. EBRD investment in the SEE region has increased in recent years, particularly in Albania, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro. The bank has been cooperating with other financial, administrative and social institutions active in SEE and is an active member of the Infrastructure Steering Group (See Boxes 27 and 28).

Financing environmental infrastructure projects in SEE countries

The EBRD finances municipal environmental infrastructure projects. During the period of 1991-2004, the EBRD signed agreements on 11 environmental infrastructure projects for loan support in Croatia, the former Yugoslav Republic of Macedonia and Serbia and Montenegro. The majority of projects were in water supply, sewage collection and treatment. Projects ranged in scope from EUR 8 million to EUR 293 million.

The European Investment Bank

The EIB is the European Union financing institution created by the Treaty of Rome, and its

BOX 28

Case study: EBRD loan for the Zagreb Solid Waste Programme

The EBRD provided funding for the Zagreb Solid Waste Programme (ZGOS) as well as for the completion of constructing two landfill cells. ZGOS is a public company owned by the city of Zagreb, with the responsibility of rehabilitating existing landfills and operation of the Jakusevac landfill. The project's global objective was to assist Croatia in complying with EU environmental standards linked to municipal solid waste disposal. The rehabilitation project is expected to result in the protection of Zagreb's groundwater sources. An Environmental Impact Assessment was prepared for project, which was accompanied by an environmental awareness-raising programme. The public was involved via intensive public consultation processes.

The total project cost was EUR 66.5 million, of which the EBRD loan to ZGOS amounted to EUR 40 million. The loan financed a part of the existing ZGOS municipal loan and the new investment component. Since the loan was not guaranteed by the city of Zagreb, this could be considered the first EBRD non-guaranteed direct public-utility loan to Croatia. Instead of the financial guarantee, a municipal support agreement outlining city responsibilities with regard to tariff policy, corporate governance and regulatory framework was drafted. In addition, service and operational contracts were signed between ZGOS and the city as a part of the overall waste management strategy. The technical assistance for contract preparation and implementation was financed by the loan as well.

BOX 29

Overview of activities of EIB in South Eastern Europe

- In Albania, a project proposal of EUR 27 million to extend and rehabilitate water supply and sewerage networks serving five municipalities was approved in 2003.
- In Bosnia and Herzegovina, EIB has funded projects related to the energy, transport and industry sectors since 2000.
- In Croatia, support has been provided for transport, energy and municipal infrastructure related projects since 2001. Some examples include a project on rehabilitation and upgrading of municipal infrastructure by local authorities throughout the country approved in 2004 (EUR 150 million) and a project on financing small- and medium-scale infrastructure schemes approved in 2003 (EUR 50 million).
- In the former Yugoslav Republic of Macedonia, projects related to energy and transport infrastructure were supported.
- In Serbia and Montenegro, EIB has financed mostly water sector projects, including EUR 25 million budgeted in 2004 to rehabilitate and upgrade water supply, wastewater collection and wastewater treatment networks in Novi Sad and Nis.

members are the Member States of the European Union. EIB's general focus is on Member Countries' integration, balanced development and economic and social cohesion. Outside the EU, EIB implements the financial components of agreements concluded under European development aid and cooperation policies. EIB has been active in SEE countries for several years and is progressively increasing its long-term lending to the region. EIB has already implemented the Quick Start Package in the Balkans and is working on the elaboration of a second programme for rebuilding the economy in SEE countries. The main interest of EIB is in financing cross-border projects of regional importance in the transport and energy sectors. The value of total funds available for SEE countries is EUR 300-400 million per year. Funds for environmental investment depend on the number of appropriate projects, with no specific limit set. EIB is also involved in the activities of the Infrastructure Steering Group (See Boxes 29 and 30).

Financing environmental infrastructure projects in SEE countries

EIB provides assistance to environmental infrastructure in SEE countries. The bank signed financing agreements of EUR 20-30 million to support municipal water infrastructure projects in Croatia and Serbia and Montenegro. Additionally, in 2003 EIB agreed to finance small- and medium-scale infrastructure schemes in Croatia, followed by a framework loan agreement valued at EUR 150 million for the rehabilitation and upgrade of municipal infrastructure in 2004. EIB provides financing in the forms of loans, venture capital, direct loans and structured finance facilities.

The Council of Europe Development Bank

The CEB currently operates with 38 member states. It provides loans and guarantees for social projects to its member states, local authorities and

BOX 30

Case study: Water infrastructure project in Albania supported by EIB

EIB signed its first loan commitment for an environmental project in the region in 2003. The project aims at improving water and sanitation services in five municipalities of Albania (Durres, Korce, Lezhe, Shengjin and Saranda) and achieving financial viability in the water utilities. The project entails the development of basic water supply, sewer network, collection system and wastewater treatment infrastructure. In addition, efforts are made to improve the financial viability of the municipal water and sewerage companies concerned and to ensure sound project implementation and subsequent management. The EIB loan is primarily used to rehabilitate and extend sewer networks and collection systems, and construct low-cost wastewater treatment facilities. EIB is providing EUR 27 million (or 37 percent) of the EUR 73 million total project cost. The EIB loan is provided for the long term with an extended grace period under favourable conditions and is meant to complement donor assistance from the World Bank/IDA, KfW, the Global Environmental Facility (GEF) and the government of Luxembourg. In order to ensure that the project addresses the country's needs, focuses funding efforts and avoids redundancy, it was developed in line with the Albanian Water Supply and Sanitation Strategy jointly with the Albanian Government, municipalities, local water companies, and co-financiers already active in the Albanian water sector.

BOX 31

Overview of CEB activities in SEE countries

- In Albania, CEB has allocated resources for projects related to healthcare and basic municipal infrastructure.
- In Bosnia and Herzegovina, projects related to post-war social issues were supported, i.e. EUR 1.2 million to the Drinking Water Supply to Refugees and the Local Population of Tuzla project in 1998.
- In Croatia, CEB has already financed several projects and allocated EUR 25.5 million for quality-of-life improvement on the islands via investment in health, education and environmental protection.
- In the former Yugoslav Republic of Macedonia, projects dealing with housing and SME modernisation with a total budget of EUR 20.1 million were supported.
- Furthermore, CEB supported Serbia and Montenegro with EUR 704,000 in providing housing for refugees.

BOX 32

Case study: CEB cooperation mechanisms for the banking sector

CEB cooperation with the banking sector is increasing in the SEE region. Four on-lending schemes have been developed. In the first case, the state acts as borrower or guarantor providing sovereign guarantee and subsequently lends through the banking sector. A second case is CEB's directly funding of commercial banks without sovereign guarantee. Another scheme is CEB funding of an EU financial institution, which subsequently finances projects in SEE, with one example the Municipal Finance Facility that supports municipal infrastructure projects in SEE countries such as Croatia via KfW. In the fourth on-lending mechanism, an EU financial institution can borrow directly from CEB, passing funds on to subsidiaries or to an associated bank located in SEE countries to finance the project. All mentioned operations are subject to credit risk analysis incurred by CEB. Whenever necessary, additional guarantees are set up in order to prevent solvency risks.

Source: CEB fiche

BOX 33

Global Environmental Facility

GEF is an independent financial organisation that provides grants to developing countries for projects that benefit the global environment. GEF projects address six complex global environmental issues: biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants (POPs). The World Bank, UNDP and UNEP are the three implementing agencies of the GEF, and each agency finances GEF activities within its respective areas of competence. Seven other international organisations (e.g. the EBRD), known as GEF executing agencies, contribute to the management and execution of GEF projects.

financial institutions. CEB financial instruments are long-term loans with low interest rates and repayment schedules adapted to meet borrower requirements. At present, CEB finances projects in areas such as environmental protection, health, education, SME creation, and rehabilitation of historic heritage. The bank has participated in implementation of Stability Pact for Eastern Europe objectives since 1999 and became its official partner in 2001. CEB actively helped the preparation of a regional strategy paper entitled "The Road to Stability and Prosperity in South East Europe." CEB activity in SEE countries is increasing: The total amount of funds available for SEE countries in 2005 is approximately EUR 160 million. At present, 15-20 percent of the total approved amount relates to environmental projects and prevention of natural disasters. CEB is a member of the Infrastructure Steering Group and the Social Cohesion Initiative dealing with health, housing, municipal infrastructure, social protection and employment (See Box 31).

Financing environmental infrastructure projects in SEE countries

CEB financed a small number of projects related to environmental infrastructure in Croatia and Bosnia and Herzegovina. Since the bank's primarty mission is assisting in emergency situations and mitigating the consequences of natural and ecological disaster, the projects have strong social aspects. Projects funded include providing drinking water to refugees and the local population in Tuzla, Bosnia and Herzegovina, and constructing municipal and social infrastructure facilities on the Croatian islands. Project costs ranged from EUR 1-26 million. Additionally, CEB assisted in a EUR 30 million project aimed at reconstructing houses and basic municipal infrastructure in 35 municipalities with multiethnic communities in Croatia. This project was co-financed with the World Bank, UNHCR and other donors. CEB channels funds to SEE countries via the financing sector as well, with the outline of this scheme described in detail in Box 32.

The World Bank

The WB consists of five institutions: the International Bank for Reconstruction and Development (IBRD); the International Development Association (IDA); the International Finance Corporation (IFC); the Multilateral Investment Guarantee Agency (MIGA); and the International Cen-

BOX 34

Overview of World Bank activities in South Eastern Europe

- In Albania, WB-supported projects relate to water, sanitation, and flood protection. Examples include the Water Supply Urgent Rehabilitation Project (USD 10 million); the Durres Water Supply Rehabilitation project (USD 11.2 million); and the Municipal Water and Wastewater Project (USD 15 million).
- The World Bank in Bosnia and Herzegovina has financed environment-related projects such as the USD 18 million Solid Waste Management project; the Emergency District Heating Rehabilitation Project (USD 20 million) and the Water, Sanitation and Solid Waste Urgent Works Project (USD 20 million).
- In Croatia, WB lending has focused mainly on infrastructure, followed by legal, justice and public administration issues. WB supported environmental projects related to wastewater treatment and drinking water supply system rehabilitation, including the Coastal Cities Pollution Control Project (USD 47.54 million); the Municipal Environmental Infrastructure project (USD 36.3 million); and the Reconstruction Project for Eastern Slavonia, Baranja and Western Srijem (USD 40.6 million).
- The bank has approved loans in agriculture, health, education, private finance and other sectors in the former Yugoslav Republic of Macedonia. The Water Utility Improvement Project, to which WB funded USD 29.7 million, is an example of projects in the area of environment and infrastructure.
- Instances of on-going projects in Serbia and Montenegro include the Serbia Energy Efficiency Project (USD 21 million); the Montenegro Environmentally Sensitive Tourist Areas Project (USD 7 million); transboundary project Integrated Ecosystem of Skadar Lake (USD 5 million); the approved PDF B project Tara and Lim River Basin Watershed Management (expected to be USD 10 million); and the Serbia Municipal Water and Sanitation Project (USD 29.7 million). Kosovo (territory under UN interim administration) has benefited from WB assistance, as in the case of the Pilot Water Supply Project (USD 4.6 million).

BOX 35

Case study: World Bank support for water supply and sanitation in Bosnia and Herzegovina

The World Bank supported the city of Mostar with a USD 13.38 million investment loan to create a unified water supply and sanitation utility with the merger of the water companies Eastern Utility and Western Utility. The loan was approved in 2002, and the project was closed in 2005. The government of Bosnia and Herzegovina was the borrower and the project was implemented by the Mostar Water Supply and Sewerage Utility. The project aimed at improving utility services and rehabilitating existing infrastructure, and was implemented in six components:

- Under priority investments for water supply rehabilitation and improvement, equipment purchase and installation were financed. Pump stations were constructed, new water supply equipment was installed, and pipes were replaced.
- The Water Distribution Network Rehabilitation and Improvement Fund financed the improvement of the distribution system.
- The sewerage network rehabilitation component supported sewer maintenance.
- The Institutional Strengthening Fund provided institution-strengthening and capacity building for the Mostar Water Supply and Sewerage Utility.
- Within the technical advisor/engineering services component, project implementation and technical assistance was provided.
- The operating expenditures component provided financing for critical expenditures for two years after the merger.

tre for Settlement of Investment Disputes (ICSID). These institutions are owned by 184 member countries, which are jointly responsible for financing WB and budgeting its funds. WB provides low-interest loans, interest-free credit, and grants to developing countries. The bank's main objective is to assist countries in the achievement of the Millennium Development Goals, among which are ensuring environmental sustainability, combating HIV/AIDS and other contagious dis-

eases, and ensuring a global partnership for development. WB is also one of the implementing agencies of the Global Environmental Facility (GEF) (See Box 33).

WB has been working with SEE countries since their independence to improve living standards, promote economic growth, and ensure that future generations benefit from sound environmental practices and social development. WB priority areas in environment include water rehabilitation and reform; district heating and solid waste services; promoting clean water supply and sanitation in rural areas; promoting private-sector-led growth with environmental protection incentives; and supporting a transparent legal and regulatory environmental framework. WB has allocated considerable support for environmental projects in the SEE region; with largest shares for pollution management, water resource management and land management projects (See Boxes 34 and 35).

Financing environmental infrastructure projects in SEE countries

The World Bank supported several environmental infrastructure projects in each of the SAP countries. The majority of projects were related to water supply, sanitation and flood protection and approximately one-quarter of the total assistance was directed to solid waste management. Loans were provided in the forms of Specific Investment Loans and Emergency Recovery Loans covering 50 percent of total capital investment cost on average. In addition, grants of USD 2-20 million were given in a limited number of cases.

WB is an active part of the Infrastructure Steering Group. The bank strongly supports regional initiatives, such as the Trade and Transport Facilitation in Southeast Europe Program which promotes more efficient and cost-effective trade flow across Balkan countries, and the Social Development Initiative which deals with the issues of social cohesion and stability. WB also finances the Black Sea and Danube Basin Initiative with the aim of promoting investments and capacity building.

Cooperation initiatives of the donor community

Some of the major international financing institutions developed cooperational frameworks to coordinate activities in project financing and to provide technical assistance for project preparation. Some key initiatives are relevant to the SEE region.

Infrastructure Steering Group

With regard to project selection and preparation, an important initiative of the EC and IFIs is the Infrastructure Steering Group (ISG). The ISG gathers the European Commission and the international financial institutions involved in providing financial support for infrastructure investment in SEE countries. The ISG consists of the EC, WB, EBRD, EIB, CEB and the Office of the Special Coordinator of the Stability Pact. The main objective of ISG is to facilitate development of regional infrastructure in SEE. The underlying principle is to enhance integration of the SEE region into the EU as well as among the countries with the development of regional infrastructure.

The Infrastructure Steering Group works by screening submitted regional infrastructure project proposals; selecting projects of strong regional character to develop regional infrastructure networks; consulting with possible donors; assisting in matching financial products with selected projects; involving the private sector; facilitating project implementation; and supervising development of appropriate institutional, regulatory and sectoral framework. ISG is active in supporting

TABLE 24

Ongoing regional infrastructure projects as of May 2005

Sector	Number of projects	Cost (in EUR millions)	Percentage of total
Transport	32	3,008.19	57.95%
Energy	12	1,721	33.15%
Water and environment	4	322.4	6.21%
Water supply	0	0	0%
Wastewater	3	222	4.28%
River basin management	0	0	0%
Environment	1	100.4	1.93%
Cross-border/ Trade facilitation	6	139.38	2.69%
Total	**54**	**5,190.97**	**100%**

Note: Total cost EUR 322.4 million (or USD 416.06 million), calculated with the May 2005 EC Budget Execution Rate of EUR 1: USD 1.2905.
Source: ISG website[5]

BOX 36

Case study: ISG project in the former Yugoslav Republic of Macedonia

ISG supports the Municipal and Environmental Action Programme (MEAP) in the former Yugoslav Republic of Macedonia. MEAP is a complex corporate development programme aiming at rehabilitating water supply and wastewater infrastructure in order to improve services, reduce water pollution and enhance water utilities' operation and financial performance; partner municipalities are Kumanovo, Ohrid/Struga, Stip, Strumica and Veles. The project commenced in 2001 and was planned to run for six years. The project was signed in 2000; however, due to ethnic unrest in 2001 and the outdated data used in feasibility study, implementation was delayed. In addition, the project team had to cope with inexperienced management in the utilities and frequent politically-motivated management changes. Despite all difficulties, the essential physical work is expected to be finished by 2006.

MEP is very complex involving several municipalities as beneficiaries and various donors of grants and loans. The EBRD took the role of lead agency and contributed EUR 20.8 million in loans to the EUR 57.7 million total project costs. Other financing sources include:

- EUR 5.1 million in local contributions;
- a EUR 6.9 million grant from Switzerland for WWTP in Kumanovo;
- a EUR 3.6 million grant from Germany for water supply in Ohrid/Struga;
- a EUR 4.2 million concessional loan from Portugal for WWTP in Stip;
- a EUR 4.8 million grant from Greece for WWTP in Strumica; and
- a EUR 7.9 million concessional loan from Portugal for WWTP in Veles.

For implementation support, the following was contributed:

- EUR 1.5 million from Japan;
- EUR 750,000 from Denmark;
- EUR 1 million from Canada;
- EUR 350,000 from Switzerland; and
- EUR 300,000 from the United States for a public awareness campaign.

Source: ISG website

the transport, energy and environment sectors. As of May 2005, EUR 5,191 million has been committed by ISG, with more than half directed to the transport sector. Environment is a relatively new field of cooperation and is beginning to gain impetus as represented by four projects with total value of EUR 322 million (See Table 24). Priority environmental sectors are water supply, wastewater, river basin management and general environmental protection.

At present, a water supply and wastewater-related project of EUR 29 million is being implemented in Albania with the EC as the lead agency. In Croatia, the EBRD is coordinating a wastewater treatment plant project in Zagreb with a total cost of EUR 135 million. Furthermore, ISG supports the Municipal and Environmental Action Programme in the former Yugoslav Republic of Macedonia with EUR 58 million (See Box 36).

Project Preparation Committee

The Project Preparation Committee (PPC) was established in 1993 with the principal goal of facilitating the identification, preparation and implementation of environmental investment projects in Eastern Europe, the Caucasus and Central Asia (EECCA).

The PPC has recently extended its support to the non-accession countries of South Eastern Europe. This initiative was developed as a part of the Environment for Europe process. The PPC mandate, changed after the Arhus ministerial conference in 1998 and endorsed at the Kiev ministerial conference in 2003, stated that PPC should direct its focus on the EECAA countries, particularly the poorest members concentrated in Central Asia and the Caucasus. Though the PPC still plays a role in CEE, it is a diminishing one. The PPC Secretariat is seated at the EBRD in London and other PPC officers are located in IFIs. The PPC

coordinates investment efforts in the regions and facilitates networking between the stakeholders.

Members affiliated to the network include IFIs, multi- and bilateral donors, regional governments, and civil- and private-sector representatives. Key IFI members include the EBRD, EIB, the Nordic Environmental Finance Corporation (NEFCO), the Nordic Investment Bank (NIB) and the World Bank Group. Other major activities of the PPC are providing assistance to possible project proponents in project identification, preparation and seeking financing. In addition, the committee also conducts capacity building workshops and provides access to good practice, know-how documents and case studies. PPC officers can also advise on project preparation and financing issues of environmental investments. The PPC network acts as a matchmaking facility between financial sources and investment needs. Client countries in the SEE region include Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro.

United Nations Environment Programme Finance Initiative

Commercial banks willing to support environmental investment and incorporate environmental considerations into financing practices are gathered under the United Nations Environment Programme Finance Initiative (UNEP-FI). The UNEP-FI is a form of partnership between UNEP and private financial sector. It was established with the objective of promoting integration of environmental considerations into all aspects of financial sector operations and services. In their regional activities, UNEP-FI has also striven to foster private sector investment in environmentally sound technologies and services. To date, UNEP-FI enumerates over 160 signatory institutions from 45 countries. As regards activity in the SEE region, a Regional Task Force in Central and Eastern Europe (RTF CEE) was established in May 2004. This task force covers the EU accession states, the republics of the former Soviet Union and the Balkans. Currently, the majority of activities are directed to the development of internal risk management procedures to accommodate risks deriving from environmental projects. The REC plays an advisory role to the initiative. Major financial members include Bank Austria Creditanstalt; Emporiki Bank; European Bank for Reconstruction and Development (Chair); HVB Group; Komercni Banka; and Raiffeisen Zentralbank Austria AG.

General observations

- EC support for environmental investment projects is very diverse, consisting of direct and indirect intervention. The EC generally provides assistance for national capacity building and institutional strengthening measures through CARDS with the purpose of creating legal and institutional framework for infrastructure investment. In addition, by supporting regional initiatives such as DABLAS and ISG, the EC facilitates the realisation of environmental investments through donor coordination and project preparation. Via these means, EC grant financing is used to a higher degree, thus achieving increased leverage. It implies that relatively small grant support to create an enabling environment for investment projects and facilitating financier involvement can contribute to a considerable number of high-value investments.
- Assistance from bilateral donor countries is available for a wide range of purposes including environmental policy support and institutional reforms. With regard to environmental investments, such assistance plays a relevant role in financing project preparation and contributing capital investments. In this way, the leverage of the grant is increased while reducing the amount of co-financing that project proponents need to ensure. Bilateral donors usually have well-defined priorities and clear policy targets in which the proposed project should fit. Nevertheless, the key constraint to the use of this source of funding is availability not applicability.
- IFIs play a crucial role in financing environmental investments by providing loans, credit guarantees and assisting in the preparation of the projects. Project proponents face stringent requirements for receiving loans, including technical, economic, social and environmental feasibility criteria with which the project must comply. IFIs are the major foreign source for capital finance for municipal environmental infrastructure projects in SEE region. However, municipalities face the challenge to ensure co-financing and projects large enough to meet economies of scale while reaching the minimum project size threshold as well. Thus, with this source of foreign finance, the main concern is the ability to use it, not the availability. Cooperation initiatives between IFIs, such as PPC and ISG, proved to be valuable in facilitating regional environmental investment and supporting project propo-

nents. Finally, loans on market conditions can be obtained from commercial banks as well. However, their involvement in environmental investments is at an early stage. An increasing form of assistance provision via commercial banks is the on-lending scheme, e.g. IFIs or foreign commercial banks lending to local banks which in turn provides loans or other financial products to project proponents.

- There are many opportunities in relation to future assistance to the region. With regard to prospective EC assistance for environmental infrastructure investments, Croatia will have a great opportunity to receive capital funding of EUR 30 million through ISPA 2005/2006. The Republic of Croatia will co-finance implementation of the ISPA investment and technical assistance projects in the amount of approximately EUR 16.8 million, includes repayment of the EBRD loan by the end user. The IPA, a new instrument replacing CARDS, PHARE, ISPA, SAPARD and some other programmes starting from 2007, will also be available for environmental projects. However, there is no separate IPA component for environment, and environmental projects will be financed primarily through a regional development component. The integration of environmental concerns into the different components will depend on the beneficiary country. EC support will continue to grow for project preparation facilities to enhance the preparation of investment projects related to environment. IFIs are also increasingly involved in preparation and financing of environmental investments with regional importance. The recent expansion of ISG activities into the environmental sector is proof of the growing interest. Besides participation in cooperation initiatives and direct investments, IFIs channel funds through on-lending mechanisms and support the local financial sector of the beneficiary country. Local commercial banks have become increasingly involved in financing environmental projects and in providing different financial products to support private-sector environmental performance.
- Considering the leverage effect of project preparation and financing facilities, the EC should continue supporting these instruments. Emphasis should be placed on increasing involvement in capital financing by the private sector. Since local self-government units are the key actors in initiating and implementing municipal infrastructure projects, capacity building assistance should be targeted increasingly to municipalities and public-service enterprises. It is also important that these facilities provide assistance to both large-scale and small local projects. In order to achieve this, increasing involvement of bilateral donors in these activities is necessary; such donors can close the financing gap for co-financing smaller environmental projects, complementing EC assistance. Regarding the successful results of ISG and DABLAS in regionally coordinated donor activities in the energy sector, transport sector and water-related investments, these efforts should continue in the environment and be extended to other geographical areas and other sectors such as waste management. Currently, DABLAS support projects located in the Danube-Black Sea catchments area. Since IPA will replace the existing financing tools to the region, intensive capacity building training will be necessary upon application. Considering the important role bilateral donors can play in co-financing infrastructure investments, it is suggested that their priorities and policies for the SEE regions are coordinated with EC and IFI assistance strategies. Bilateral donor institutions have the potential to support feasibility studies of environmental infrastructure projects and other technical assistance for project preparation.
- As mentioned above, IFIs are potentially the chief sources of finance for environmental investment. Funds are available though very challenging for project proponents to access, due to stringent requirements, lack of project preparation skills and the still-extant negative attitude to borrowing. In order to overcome these barriers, it is suggested that IFIs increasingly support capacity-building actions devoted to improving project preparation skills of project proponents, such as PPC efforts. Furthermore, assistance in developing national financing schemes is proposed, e.g. through supporting the domestic financing sector with technical assistance. Through on-lending mechanisms, loans can be accessed by wider group of stakeholders, including private sector operators and other public proponents of small scale investments; this form of support should therefore be expanded. National governments play a crucial role in ensuring an enabling environment for investments by creating and maintaining the necessary legal,

institutional and economic conditions. Furthermore, the allocation of EC grants between components depends largely on national decisions. Thus, they should provide the needed political will to improve the environmental situation of the countries and strive to delegate the necessary resources to local governmental units in order to realise the investments. At the international level, national governments should be increasingly involved in regional cooperation related to cross-border investments or environment-related infrastructure projects having a regional impact. Local project proponents must gather information on sources of finance, financing conditions and instruments to match projects with available donor support. Before approaching donors, proponents should have a thorough understanding of financing mechanisms. By preparing financially viable projects and by demonstrating clear ownership, the chance to receive support can increase significantly. Project proponents should therefore develop strategies to attract finance and make efforts to provide the required share. Additionally, special attention should be given to risk assessment, risk management, time management and quality assessment for implemented projects.

Endnotes

1 Each year, the countries concerned prepare CARDS Annual Programmes, which are finance proposals to the European Commission. The Annual Programme describes the objectives of the national programme with updates on the achievements in priority areas and identifies lessons learned. The programme components elaborate on estimated costs and the requested amount of CARDS assistance as complementary finance.

2 EUR 75 million, excluding regional funds for integrated border management, was allocated from the CARDS Regional envelope for the period of 2002-2004 for the five SEE countries.

3 Background data for the calculations can be found in Annex 8.

4 DISF website: <www.danube-isf.com/>.

5 ISG website: <www.seerecon.org/infrastructure/projects/display.cfm?sector_ID=3&status=Ongoing>.

Chapter 7
Conclusions and the Way Forward

Chapter 7: **Conclusions and the Way Forward**

Mitigating environmental pollution in SEE

Environmental standards in SEE countries are lower than those of the EU. Main problem areas include air pollution from outdated industrial practices; increasing pollution due to growing traffic and aging vehicles; water pollution due to uncontrolled discharge of untreated communal and industrial sewage into rivers, lakes and seas; and uncontrolled waste disposal often endangering drinking water sources. Recently, these sources of pollution have been recognised in SEE countries.

Investing in environmental infrastructure is one of the most important ways to mitigate the negative impact of point sources of pollution in order to improve environmental conditions in SEE countries. This infrastructure includes air pollution measures for thermal power plants and industries; upgrading and constructing sewage systems and wastewater treatment plants; and developing waste management systems and facilities for both public sector and industry plants. Another important aspect under discussion is the need for clean technological solutions.

Constructing environmental infrastructure as such cannot be considered a remedy for all environmental problems in the region. When looking at environmental problems from the broader perspective of sustainable development, the economic and social situation of each country in the region should be taken into account. Considerable attention should be given to the poverty level in some areas and the social aspects of developing infrastructure, where the polluter-pays principle would burden citizens with additional financial contributions.

Therefore, although this publication, its conclusions and actions for the future focus on developing environmental infrastructure in the SEE region, minimisation of the need to develop such infrastructure through searching for alternative solutions to infrastructure development should always be discussed. Through minimising the use of resources (i.e. through water conservation, waste prevention, recycling, and energy efficiency), minimising insufficient systems (e.g. reduction of leakage from water supply systems, improving efficient maintenance) or improving industrial technology, infrastructural needs can be effectively optimised.

Bearing the above-mentioned considerations in mind, there is still a great need to develop environmental infrastructure in SEE countries in order to improve their environmental conditions. This chapter seeks to address questions regarding development of such infrastructure in the region in the most effective way in the upcoming years.

Role of the EU accession process

For the countries of the region, EU Accession is now a top priority. Through fulfilling the obligations of the Stabilisation and Association Process, SEE countries are moving towards acceptance of and commitment to implementation of the EU environmental acquis. Accession requires compliance with all EU legislation before the date of accession if no transitional period is granted. Experience from the new EU Member States show that compliance with the EU environmental requirements is a complex, time-consuming and costly process. The environmental chapter of the EU acquis is one of the most demanding to implement, as there are about 300 items of EU environmental legislation to be imposed on national legislation. Transposition must be followed by effective implementation and enforcement.

The SEE countries have already begun the process of transposition of the environmental acquis into national legislation and are making steady progress. The basic elements of legislation structure are in place and work on drafting and setting the laws according to the EU standards is ongoing in all SEE countries.

In practice, the EU Accession Process requires SEE countries to invest in environmental infra-

structure in many areas. Simultaneously, EU accession provides countries an opportunity to set objectives and standards for the environment, to improve the planning process and management practices, to provides access to the best practices, and to receive assistance in developing such infrastructure. The experience of the new EU Member States proves that garnering investment in environmental infrastructure was one of the biggest challenges and a similar challenge to the SEE countries can therefore be expected.

On one side, the challenge is financial: calculations from European Commission studies show that expenditure of 2-3 percent of GDP per year was needed in order to achieve full compliance with the EU legislation.[1] For many SEE countries in which GDP levels are much lower than in the new EU Member States, reaching that level of expenditure would be a major problem. On the other side, national sources to finance environmental infrastructure are underdeveloped in the majority of the countries, making it difficult to mitigate the social aspects of compliance and to recover costs. Finally, the financial burden is put on the private sector, which must spend a considerable amount of money to achieve European standards.

Available sources of finance

In recent years, the majority of environmental infrastructure projects have been financed through bilateral assistance and international financing institutions (IFIs). Financing from national sources is very low and very limited.

At present, only Croatia has made a big step forward, through making the environmental fund operational. Clear priority setting in the fund resulted in assistance provided to the waste sector via co-financing waste management investment projects, especially closure of old landfills. Main problems with financing environmental infrastructure are linked to user charges below cost-recovery levels, non-transparent and inefficient subsidy schemes, inadequate access to donors and IFIs loans, and no commercial financing. The result is that basic infrastructure maintenance work is not carried out, and assets deteriorate or cease to function.

To comply with environmental infrastructure investments needs, expenditures from national budgets must be increased. It has been acknowledged that foreign sources of finance are available only for a tiny proportion of funds needed, and the majority of financial resources must come from national budgets.

EU assistance is mainly channeled through the CARDS programme, which aims at institution building and governance and legislation improvement. Although this instrument was not designed to provide support for investment projects directly, it plays a crucial role in creating an investment-friendly environment through improved legislation, better-functioning institutions, and regional initiatives on infrastructure projects identification and prioritisation. Additionally, by providing resources to project preparation (e.g. through project preparation facilities), the instrument plays an important role in preparing projects to be financed by international financing institutions. Croatia is the only country eligible for the ISPA instrument dedicated to environmental infrastructure. It can be expected that together with the progress towards accession, EU financial assistance will increase and extend to other countries. This is especially relevant in relation to IPA assistance provided from 2007. Intensive efforts in planning and preparing projects for absorption of the funding before the instrument is operational are therefore needed.

Assistance from bilateral sources plays an important role, particularly in capacity building and institutional strengthening for investment project preparation; these funds are targeted at supporting environmental infrastructure. In general, assistance to the environmental sector represents only a small percentage of overall assistance channeled to the SEE region. Since 2002, there has been a decreasing trend in overall assistance to the region, which may be explained away by completion of post-war reconstruction programmes, prospects of increased EU assistance to the region, and a shift in donor assistance to other regions, e.g. former republics of the Soviet Union. Bilateral donor assistance should play a very important role in upcoming years in filling the gap of project preparation as a pre-condition to IFI financing bankable projects.

IFIs potentially play a key role in financing infrastructure projects through loans. Environmental infrastructure projects are present in all IFI strategies, but problems in generating sufficiently prepared projects are still extant. Looking at the number of projects developed in the energy and transport sectors in the SEE, it seems easier to develop these bankable projects in the region than for the environmental sector. In future, IFI assistance may increase along with macroeconomic stability and economic growth, which in turn enables development of bankable projects.

Private funding of infrastructure projects is currently marginal. An underdeveloped regulatory

and enforcement framework does not create a strong enough incentive to motivate the private sector to invest in environmental improvements. The involvement of the private sector in public infrastructure development and management is often hindered by the lack of relevant legislation which would regulate such ownership or involvement. In the future, a significant increase in the role of private-sector funding in parallel with achieving macroeconomic stabilisation can be expected. Additionally, funding of environmental projects by private banks is also very underdeveloped, mainly due to a lack of experience in risk management for environmental problems. Together with transfer of this expertise, commercial banks could become more interested in providing loans for environmental projects.

Status of environmental infrastructure in SEE

Development of key national documents such as national environmental action plans is usually supported by donors and has resulted in identification of environmental problems. Many of these reports and documents were not developed in light of the prospects for EU accession.

At present, there are no available strategies or programmes which would identify the needed environmental infrastructure and would assess investment needs. Apart from a general statement that the environmental infrastructure is in poor condition or non-existent, few follow-up strategies which would propose needed improvements exist. The assessment on the status of national planning (see chapter 4) shows that work in many countries on developing various strategies is ongoing, but it is difficult to assess to what extent identification of environmental infrastructure needs will be focused upon.

From this perspective, the role of the Priority Environmental Investment Programme (PEIP) in supporting national authorities developing lists of projects for compliance and in supporting them to identify relevant infrastructure projects was significant. Looking at the findings of SEE infrastructure status, the need for improvement is evident. The situation is additionally complicated by the decentralisation process, which shifted responsibilities for providing environmental services to the local, i.e. municipal, level. For municipalities, the task of developing infrastructure is a novelty to a great extent.

Strategic approach

It can be concluded that the number of environmental infrastructure projects being financed in the SEE region is very low; this creates a concern, especially if compared with the investment challenge resulting from the EU Accession Process ahead. Major challenges come in generating more sources of project financing, improvement in operation efficiency, and maintenance of existing infrastructure. Another task is creation of conditions on the national level which enable easier and quicker development and implementation of environmental infrastructure projects.

This publication and in general the assistance under the PEIP provided insight into the problems and opportunities while highlighting regional- and local-level issues which are important in developing environmental infrastructures. Additionally, PEIP assistance resulted in better prepared projects: 14 percent of identified projects in 2003 received funding by November 2005. Nevertheless, many external and internal barriers prohibit effective development and implementation of environmental infrastructure projects.

The key question of the strategic regional approach to financing environmental infrastructure projects is "what has to be done so that more environmental infrastructure projects may be implemented in the SEE region?"

Key barriers

The key barriers to effective implementation of environmental infrastructure projects can be divided into those at the local level, the national level, and external barriers (outside the SEE region). Table 25 presents an overview of existing barriers in and outside the region.

Based on analyses of existing barriers, some should be firstly addressed. The authors identified four groups of key barriers which, if addressed, would speed up the process of developing and implementing environmental infrastructure projects. These key barriers are also the basis for development of strategic approach presented later in this chapter, and include:

- lack of domestic financing sources;
- inefficient project preparation;
- unfavourable conditions for borrowing; and
- low levels of private sector involvement.

TABLE 25

Overview of barriers to infrastructure project development

	NATIONAL LEVEL		LOCAL LEVEL		OUTSIDE THE REGION	
TYPE OF BARRIER	**BARRIER**	**IMPACT**	**BARRIER**	**IMPACT**	**BARRIER**	**IMPACT**
Legal	Lack of legislative incentive to develop infrastr-ucture	No clear direction on standards to be achieved in partially transpo-sed EU legislation	Lack of power to impose fines on state-owned polluters	No incentive to develop infra-structure project	IMF restrictions to create domestic sources of financing in many countries	Non-existence of financial resources to support project implementation
	Low level enforcement of adopted legislation	No pressure on polluters to invest in environmental improvements	Lack of clear autonomy of municipality utilities	Difficulty in designing bank-able projects	Unknown condi-tions for receiving IPA financing	Project propo-nents not know-ing how to get financing
	Underdeveloped borrowing laws	Project propo-nents unable to take a loan				
	Unclear owner-ship of project sites	Responsible parties for pollu-tion unclear due to privatisation				
Policy	Environment sector low on government policy agenda	Insufficient finan-cial support for environmental infrastructure projects	Grant-seeking mentality	Cost recovery not achieved	Lack of coordi-nation among assisting donors	Outdated docu-mentation for project prepara-tion
	Underdeveloped economic instru-ments	No incentive to reduce pollution	Mismatch be-tween given responsibilities and available funding	Insufficient funding available	Low level of involvement of bilateral donors in financing investment projects.	Lack of funds for infrastruc-ture project preparation
	Lack of involve-ment of Ministry of Finance in in-frastructure pro-ject development	Difficulties in fi-nancial support of projects and receiving a loan	Lack of incen-tives for develop-ing regional in-frastructure solutions	Economy of scale not achieved	Limited assis-tance from pro-ject preparation facilities	Project prepara-tion facilities unusable by some project proponents
			Lack of incentive (i.e. obligation) to implement low-cost invest-ments to reduce pollution	Continuing pollution		
			Lack of holistic approach to in-frastructure de-velopment	Elements of in-frastructure pro-posed without complete solu-tions to solve the environmental problem		

TABLE 25

Overview of barriers to infrastructure project development (continued)

	NATIONAL LEVEL		LOCAL LEVEL		OUTSIDE THE REGION	
TYPE OF BARRIER	**BARRIER**	**IMPACT**	**BARRIER**	**IMPACT**	**BARRIER**	**IMPACT**
Policy (continued)	Lack of comprehensive priority lists of projects to comply	Projects financed on subjective basis	Lack of lobbying power on national level	Legislation in favour of municipalities not adopted		
	Lack of incentives to stimulate economy-of-scale solutions	Municipalities propose local projects too small to be efficient	Lack of willingness to borrow	Borrowing seen as a failure in management		
	Lack of procedures for the process of tariff increase	Project proponents unknowing of how to conduct efficient process of tariff increase	Lack of effective support to disadvantaged groups	Affordability of proposed solutions problematic		
	Lack of incentives for private sector involvement in infrastructure projects	Lack of investment in environmental projects by private companies	Lack of measures to minimise the need for infrastructure	Oversized infrastructure		
			Difficulties in acquisition of sovereign guarantee or higher-level approval	Loans cannot be taken		
			Lack of requirement for multi-year budgeting	Lack of long-term local-level investment planning		
Financial and Economic	Non-existent or inefficient sources of domestic finance	Lack of project-proponent access to co-financing sources or to mitigate social aspects of reforms.	Insufficient available resources for capital investment, coverage of operation and maintainance costs	Infrastructure project development made impossible	High thresholds to receive IFI loans	For smaller projects, inaccessibility to funding
	Low collection rates of extant economic instruments, including service charges	Lack of funds for operation and maintenance	Lack of adequate cost estimates	Costs of projects are over or under estimated	Low level of EC funding for infrastructure	Lack of financial support to projects implementation
	Lack of macroeconomic stability	Lack of long-term planning for infrastructure projects	Low tariff levels	Tariffs insufficient to cover O&M costs and no provision of funds for capital improvement		

TABLE 25

Overview of barriers to infrastructure project development (continued)

	NATIONAL LEVEL		LOCAL LEVEL		OUTSIDE THE REGION	
TYPE OF BARRIER	**BARRIER**	**IMPACT**	**BARRIER**	**IMPACT**	**BARRIER**	**IMPACT**
Financial and Economic (continued)	Lack of estimates for investment needs to comply with EU standards	Assessment of capital needs for infrastructure development impossible	Difficulties in payment of current expenses	Lack of creditworthiness		
	Lack of affordability analyses as result of tariff reforms	Social impacts of cost recovery unmitigated				
	Limited fiscal space for new infrastructure borrowing	Limited opportunity for project proponents to access loans				
Management	Lack of management skills in developing and managing expenditure programmes	Extant programmes inefficient, new programmes not developed	Lack of management skills in developing and implementing complex infrastructure projects	Proposed solutions not within EU rules		
	Lack of knowledge as to how to develop financing programmes	Extant programmes not achieving goals, no new strategies designed	Inefficient management of utilities	Higher O&M costs and investment capital need		
	Lack of methodology for investment cost estimates	Project costs over- or underestimated	Underdeveloped public participation process for infrastructure project development	NIMBY syndrome		
	Low quality statistical data	Projects designed in unrealistic manner	Difficulties in project startup	No appointed staff responsible for project development at an early stage		
			Lack of risk analysis skills	Higher chance of project failure		
			Lack of skills in integrating infrastructure projects into local government budgeting	Difficulties in conducting long-term planning for project implementation		
			Lack of skills in developing ToR	Outcomes of contracted work not in line with expected objectives		

TABLE 25

Overview of barriers to infrastructure project development (continued)

	NATIONAL LEVEL		LOCAL LEVEL		OUTSIDE THE REGION	
TYPE OF BARRIER	**BARRIER**	**IMPACT**	**BARRIER**	**IMPACT**	**BARRIER**	**IMPACT**
Institutional	Division of environmental responsibilities among ministries	Lack of coordinated approach to support development of infrastructure project	Lack of experience of working with donors and IFIs on financing projects	Difficult to comply with donors requirements		
	Lack of clear demarcation of responsibilities between national and local levels	Overlap of actions, lack of coordination	Lack of project developed in municipality/ utility	Nobody capable of moving project forward		
	Low capacity of national authorities for strategic planning	Project lists are usually donor-oriented, not environmental problem-oriented				
	Lack of experience in effectively managing lists of projects	Slow movement of projects along the projects list				

Addressing barriers

In order to address these barriers, the strategic approach should include the following activities:

Securing domestic sources of finance

- National authorities should develop environmental financing support mechanisms on the national level (e.g. environmental funds, expenditure programmes) to support financing of infrastructure projects and to assist in overcoming affordability problems for those of low-income.
- The financial gap between the new responsibilities of the local administration resulting from decentralisation process and extant financial allocation for fulfillment of these obligations must be assessed by national authorities. These processes would contribute to the identification of the financial gap and the scope of assistance needed to fulfill this gap.
- National authorities must see government spending in the medium-term macroeconomic framework, and realise that investing and assisting in financial investment brings economic and societal benefits through improving conditions of human life.
- Environmental authorities must enter into a dialogue with finance ministries to discuss upcoming investment challenges and the importance of the environmental infrastructure and national support.
- The importance of environmental projects in the EU Accession Process should be highlighted in governmental agendas, e.g. via demonstrating benefits of compliance with EU legislation.
- Economic instruments should be introduced and/or revised to be efficiently collected as a source of revenue for domestic support to environmental projects.
- Enforcement of fees charged to state-owned polluters should be improved.
- Economic incentives must be developed to encourage investment in reducing pollution, e.g. the implementation for penalties for overuse of resources such as water. National authorities must develop a system of collecting fees and must create a system to reduce penalties if environmental infrastructure improvements are ongoing or planned.

Improving efficiency of project preparation

Improving efficiency at the national level

- Bilateral donor assistance should be refocused to more active involvement in technical assistance/project preparation for infrastructure projects. More project preparation facilities must be developed, e.g. in contribution of bilateral donors and EC funding, in order to have a leverage effect of provided assistance. Clear objectives should be set for larger projects suitable for the IFIs financing and smaller projects for grant financing.
- Intensive capacity-building training on the use of the IPA instrument for environmental infrastructure projects is needed. Development of financing strategies should be assisted by donor funding and IFI support.
- National authorities must develop a system which would allow achieving economy of scale through promoting regional solutions. When designing economy-of-scale solutions, the role of natural cultural regions should be taken into account to increase ownership of project; procedures for consolidation of utilities should be developed; and conditions for creating associations of municipalities should be stimulated.
- The role of environmental agencies in control and enforcement of environmental legislation should be strengthened.
- Regional cooperation should be strengthened to support exchange of best practices among nations.
- Responsibilities and roles of various ministries should be revised and inter-ministerial coordination introduced to stimulate and quicken the process of infrastructure project development.
- Comprehensive lists of projects should be developed and prioritised taking into account the top-down (ensuring economy of scale) and bottom-up (taking into consideration local needs) approaches. The system for effective project list management should be developed.
- The process of tariff increase should be put into procedures and unified for the sectors. Affordability analyses should stimulate national authorities in developing social impact mitigation programmes.
- National authorities should produce guidelines on calculating investment costs.
- National authorities should introduce obligation of implementing low-cost investments in order to reduce/minimise pollution before the high-investment project is introduced.
- National authorities should promote approaches to reduce the need for infrastructure though minimising the use of resources (e.g. water conservation).
- National authorities should introduce procedures for multi-year budgeting in municipalities.

Improving efficiency at the local (project) level

- Intensive capacity building on best practices and project preparation is needed. The gap exists particularly in relation to municipalities, for which development of investment infrastructure projects is a novelty.
- Constructive dialog between local project proponents and national authorities is needed to ensure that local projects be part of existing strategies and programmes.
- Project proponents should involve the public in infrastructure project development from the early stages of infrastructure design.
- Procedures for supporting the autonomy of utilities from municipalities should be introduced in order to increase efficient management of utilities.
- Efficiency of utilities should be a pre-condition for starting the process of tariff level increase in order to exclude costs of inefficient management from the costs of service, delivery and use.
- Holistic approaches to infrastructure development should be proposed at the project formulation phase, with all alternative solutions included in the project.
- Staff members should be appointed in the project's early stages in order to support project development from the very beginning.
- Ambitious plans to extend the coverage and level of infrastructure services must be replaced by more realistic, modest capital-improvement programmes tailored at providing essential repairs and rehabilitation of critical elements of infrastructure in order to maximise efficiency gains within the limits of affordability for households and municipal budgets.

- Elements of quality assurance, risk assessment and management, and time management should be introduced.
- Innovative solutions such as brownfields development should be promoted to support development of cost effective infrastructure solutions and private sector involvement.

Improving conditions for borrowing

- Projects large enough to be financed by IFIs should be identified. In the process of developing comprehensive lists of such projects, only those financeable by IFI loan should be communicated to IFIs and further developed with their assistance and guidelines on procedures.
- Lessons learned from bankable infrastructure projects in the energy and transport sectors in SEE should be developed and assessed for their applicability to the environmental sector. This can be especially relevant for legal and economic issues, procedures for permission, environmental impact assessments, taxation, and land ownership issues.
- IFIs should conduct intensive capacity building for the municipalities of the region on possibilities and requirements of receiving finance from these institutions in order to introduce the culture of working with IFIs.
- National authorities should revise and optimise the procedures for obtaining guarantees so that municipalities may more easily borrow for capital investment.
- National authorities should provide procedures for all relations between lending institutions, the role of government, and obligations at local and national levels.
- Fiscal space for the countries should be assessed and possible borrowing identified.
- IFIs should intensify cooperation with commercial banks in order to launch credit lines for smaller investment projects.
- Creditworthiness of municipalities should be increased through better financial management to solve cash flow problems.
- IFIs should revise their threshold policies in order to accommodate small countries' infrastructure needs.

Enabling involvement of the private sector

- Private sector involvement in capital financing is inevitable in order to target fiscal space problems. Commercial banks must launch special credit lines for private sector on capital investment borrowing to enable them to access the capital.
- National authorities must develop guidance and procedures on establishment of public-private partnerships and on ownership issues. Additionally, legal and institutional barriers to public-private partnerships should be removed.
- Procedures must be developed to determine liability issues as result of privatisation on the national level.
- Provisions of state aid should be analysed and/or developed in order to provide adequate support to private sector investors.

One pre-condition for achieving all the abovementioned goals is provision of comprehensive capacity building and institutional strengthening assistance to the countries. Special attention should be paid to clarifying roles and responsibilities in various institutions involved in the process, so that tasks may be taken up more efficiently.

Options for strategic action

Keeping in mind the objective of improving environmental standards in the SEE through effective implementation of environmental infrastructure, what has to be done to increase the number of infrastructure projects to be successfully developed and implemented in the SEE region must be determined.

It is proposed that the achievement of this goal is done in a three-phase approach beginning in 2006. These phases are defined as follows:

- Short term, or phase 1; one to two years (2006-2007). The key objective in the short term is to conduct preparatory work for effective development of environmental infrastructure projects, i.e. identification and prioritisation of projects for compliance with EU investment-heavy directives, mechanisms for inter-ministerial coordination, financial strategies.
- Medium term, or phase 2; up to five years (2006-2010). The key objective in the medium term is to begin implementation of infrastructure projects in all sectors for major polluting sites and to optimise financial sources.

- Long term, or phase 3; beyond five years (2006-onward). The key objectives in the long term are to make a wider range of financing projects available, and to develop and finance more local infrastructure projects.

The strategic approach developed and presented in this section provides general directions of work for different stakeholders in the region to facilitate development and implementation of infrastructure projects. The proposed approach has limitations due to many uncertainties in relation to future developments in the region, which should be taken into account. Key limitations include:

- Various stages of development in SEE countries; some countries are about to start EU accession negotiations while others are on the way to fulfilling SAP process obligations. The length of each phase identified in the strategic approach will vary by country.
- The EU accession date of any country covered in this report is unknown, and at accession EU funding resources are made available to the new member countries. As a working assumption, the opening of EU funds to SEE countries is included in the long-term phase.
- Complexity of investment project preparation and implementation prohibits direct comparison of the strategic approach with timescales of individual projects, as the latter can vary widely.
- National political changes and/or elections can influence the speed of reforms. Effectiveness in financial and economic reforms can reduce international debt and will increase the fiscal space for borrowing from IFIs.
- Effectiveness of social reforms, e.g. a lack of social protection reform as a result of increased charges, will result in affordability problems and lack of resources gathered through user charges.

Additionally, the approach has a linear form, meaning that the completion of each phase is linked to the achievement of the previous phase's objective, but the length of each phase may differ. Nevertheless, the strategic approach can be relevant for any country in the region, indicating a general direction of work to increase the number of successfully implemented infrastructure projects.

The proposed strategic approach identifies key stakeholders in the process whose actions and directions of work should accelerate the process of developing and implementing environmental infrastructure projects in SEE.

For the strategic approach, the following stakeholders were taken into account:

- **The public sector.** In the short term, effective use of scarce public finance would depend on strategic prioritisation of projects. Additionally, national authorities managing public finance should design and launch a comprehensive environmental financing mechanism, which would support investment project implementation. In the medium-term, operational domestic environmental financing mechanisms would gain importance, providing project preparation financing and project co-financing. The importance of public finance is particularly relevant in rehabilitation projects, closure and cleanup projects. In the long term, public finance would provide targeted assistance programmes on social protection.
- **The European Union.** In the short term, the greatest challenge is to get SEE countries prepared to receive assistance through the IPA instrument, with effective programming and building lists of projects for assistance playing the lead role. In the medium term, the IPA would provide assistance, and well-prepared projects would increase absorption capacities. In the long term, preparation for reception of post-accession EU funding such as Structural Funds must be done. As the accession date of any SEE country is unknown as of this writing, it must be assumed that preparing for Structural Funds funding would happen in the long term.
- **Bilateral donors.** In the short term, there will be an increased role for bilateral donors providing capacity building for project preparation, especially in cooperation with IFIs. Additionally, in the short- to medium term, the role of bilateral donors would increase in relation to providing finance for smaller infrastructure projects and innovative approaches, resulting from transfer of know how and technologies. In the long term, bilateral donors would change assistance arrangements as result of EU accession of the SEE countries, and more EU tools for international/bilateral cooperation would be accessible for the newly accessed EU member states.
- **International financing institutions.** In the short term, IFIs would finance pilot projects in the countries and identifying lessons learnt. In the medium- to long term, IFIs would have a significant role in providing financing for large infrastructure projects and in promoting management discipline.

- **Service users.** Service users are included in the strategic approach as providers of revenue from user charges. At present, there are serious deficiencies in financing operational and maintenance costs. Fully covered operational and maintenance costs of existing infrastructure are a pre-condition for successful development of new infrastructure. In the medium to long term, the importance of user charges would increase as a result of implementing the polluter-pays principle and efforts to achieve cost recovery.
- **The private sector.** In the short term, the role of the private sector would focus on providing know-how for consultancy services, in the medium term, if the conditions for providing finance from private sectors are established, the private sector would be getting involved in pilot cases in the public private partnerships. In the long term it might be expected that the involvement of the private sector in capital investment in infrastructure projects would increase.

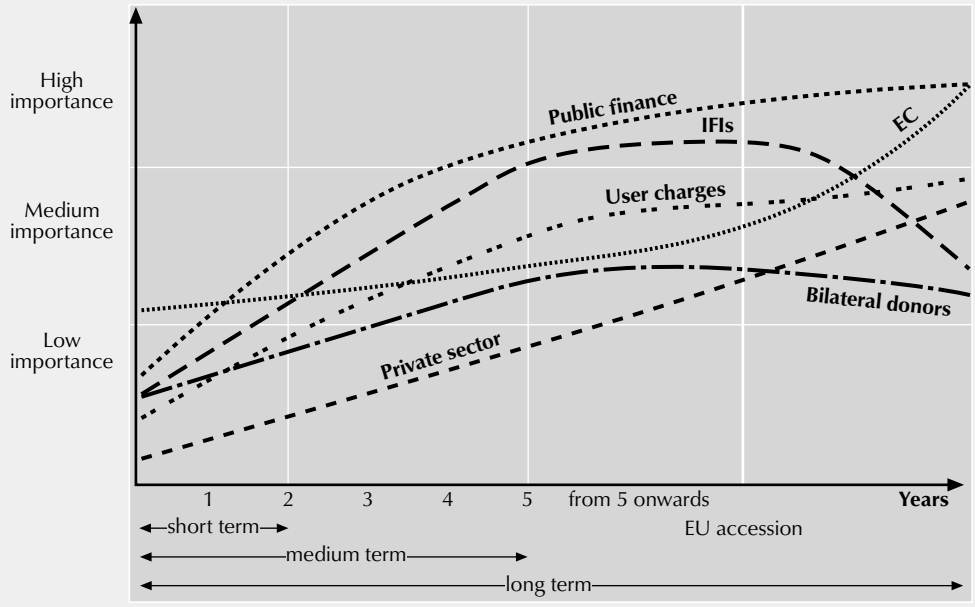
Figure 17 illustrates the importance of different sources of finance in the timescale chosen for the strategic approach. In public contributions to financing environmental infrastructure projects, it is assumed that the importance of public finance would increase continuously from the short- to the long-term phases. Particularly important is that public finance have a role in mitigating affordability problems arising from cost-recovery approach.

The importance of funding provided by the EC would also increase continuously, first through access to IPA funds and from accession through access to EU Structural Funds. It is also assumed that capacities of project proponents and national administration would increase so as to assist more and better-prepared projects.

The role of IFIs would also increase continuously. In the short term, after administrative and legal barriers to borrowing are removed, some pilot projects would be developed. In the medium term, assistance would focus on providing finance to larger projects. After EU accession, as in the new EU member states, a decreasing trend in pro-

FIGURE 17

Importance of sources of finance for infrastructure projects over the time



Note: EU accession is shown as a hypothetical time in the future which would change the importance of different sources of finance. It is not bound to any actual time in the future, as the date of accession for all SEE countries is unknown.

viding finance should be observed. The role of bilateral donors would increase over time, especially in the short-term phase, should they become more actively involved in infrastructure project preparation. After EU accession, the role of bilateral assistance may decrease, as more internal EU instruments replace bilateral cooperation.

The role of user charges would increase in parallel with collection rates and more efficient use of fees in covering operation and maintenance costs. With enforcement of the polluter-pays principle, the importance of user charges would also increase, as would the importance of the private sector. In the beginning, the private sector's role would be limited to providing technical assistance in project preparation; if needed changes in the legislation and institutional establishment are made, the private sector would be more active in public private partnerships and in providing capital finance from commercial banks.

The short-term approach – one to two years (2006-2007)

In the short-term phase, the following tasks are required for the identified key stakeholder:

National government level

- The remaining EU legislation related to key investment-heavy directives must be transposed into national legislation, and enforcement mechanisms must be designed.
- Clarifying roles and responsibilities of different ministries in relation to key investment-heavy directive implementation must be undertaken, followed by assessment of capacities needed (i.e. expertise and experience) within ministries to effectively assist in and to monitor implementation of legislation. Additionally, inter-ministerial cooperation with all relevant ministries (particularly the ministry of finance) should be established.
- The gap between existing infrastructure and infrastructure needed to achieve standards set in legislation must be assessed. Development of implementation plans and programmes should be followed by development and prioritisation of long lists of projects to comply with legislation. Designing a system for effective pipeline management and identification of capacities needed for its operation is necessary.
- Development of financial strategies which would take regional solutions for infrastructure to ensure into account economy of scale must be undertaken.
- Assessment of financial capacities of institutions which must develop or upgrade the needed infrastructure must be carried out. Based on the results of assessment, design and adoption of environmental financing mechanisms on a national level are necessary to support financing of infrastructure projects.
- Assistance to the potential project proponents in capacity building on infrastructure project preparation, taking different sources of finance including IPA funding into account should be provided.
- Assessment of fiscal space and opportunities for borrowing from IFIs should be made and followed by identification of larger projects suitable for IFI financing.
- Assessment of national, legal and institutional barriers to involving the private sector in infrastructure projects must be undertaken, as must designing a strategy for overcoming these barriers.
- Design of economic instruments which would encourage reduced use of natural resources and investment in pollution reduction technologies must be performed.
- Cooperation must be improved with the donor community to facilitate donor assistance programmes targeting real national needs.

Donor community (EU, bilateral donors, IFIs)

- Assistance programmes must be revised by bilateral donors to include more active involvement in project preparation.
- Extension of regional cooperation for the leverage-effect assistance garnered from different sources of finance must be given by the donor community.
- A strategy for cooperation between bilateral donors and IFIs must be developed by the donor community so that prepared projects can receive financing from the latter in the most efficient way. Project preparation facilities which provide assistance to potential project proponents to develop pilot environmental infrastructure projects must be launched.

- The national government must be cooperated with in identifying small-scale priority projects which can be co-financed by bilateral donors, larger-scale priority projects which can be financed by IFIs, and priority projects suitable for IPA financing.

Local (project proponent) level

- Collection of user fees to gather more resources to cover operation and maintenance cost of infrastructure by local authorities must be improved.
- Operation and maintenance of existing infrastructure and financial sustainability of utility companies must be improved.
- Schemes to reduce use of resources to optimise the needs for infrastructure must be introduced.
- Needs and concepts for upgrades and new infrastructure to comply with key EU investment-heavy directives must be identified.
- A multi-year budget to plan for implementation of long-term infrastructure projects and to secure resources from local budgets for project co-financing must be introduced.

The medium-term approach – up to five years (2006-1010)

In the medium term, the following stakeholder actions are identified:

National government level

- Inter-ministerial cooperation must be monitored and adjusted to governmental structures so that implementation plans and programmes are implemented efficiently.
- Identification of new projects and ensuring of financing for priority projects must be managed.
- Domestic sources for co-financing investment projects must be launched and affordability problems for low-income service users addressed.
- Project proponents must be assisted in preparing larger projects for IFIs and in preparing priority projects for IPA financing.
- A system of revenue collection through economic instruments and monitoring efforts to comply with legislation must be implemented.
- Economic and social benefits resulting from investment in environmental improvements must be identified.
- Commercial banks must be cooperated with in order to ensure private-sector access to capital.
- Cooperation with the donor community will enhance complementary financing of environmental investments from external sources and create enabling conditions for local authorities for borrowing.

Donor community (EU, bilateral donors, IFIs)

- Operational funding from the IPA for environmental infrastructure projects must be made and assistance in increasing absorption capacity to countries given.
- Assistance strategies must be revised so that IFIs focus more on financing environmental infrastructure projects.
- Assistance in infrastructure project preparation in cooperation with the entire donor community must be provided by bilateral donors.

Local (project proponent) level

- Tariff levels for service use must be increased to cover operation and maintenance costs of utilities and introduction of social support programmes to mitigate affordability problems. Such a rise should result in increased creditworthiness of municipalities.
- Prioritisation of identified needs and concepts for needed infrastructure and further development of priority concepts must be done, identifying sources for financing project preparation and preparing projects for external funding.
- A holistic approach in proposed projects must be ensured so that all elements of proposed infrastructure will address the environmental problem according to EU legislation.
- Co-financing means from local budgets must be ensured for priority projects.
- The national government must be cooperated with in preparation of financing strategies for priority projects.
- Innovative solutions such as brownfield development must be implemented in infrastructure development schemes.

The long-term approach – more than five years

Specific long-term actions for stakeholders are more difficult to define, depending to a large extend on successful implementation of the activities identified in previous stages. The unknown date of EU accession of the SEE countries also hinders identification of specific actions for key stakeholders.

In general, national government actions would focus on improving efficiency of project-pipeline management and on monitoring enforcement of environmental legislation. By this time, favourable conditions for private sector involvement in infrastructure projects can be assumed. National government would revise the assistance provided through domestic financing sources to comply with state aid regulations and would continue providing assistance in cases of affordability problems.

The role of external sources of finance, e.g. the EC, IFIs and bilateral donors, would be in providing a broad range of assistance programmes for infrastructure projects in order to comply with EU directives.

Project proponents on the local level would focus on increasing creditworthiness of municipalities, on designing financial strategies for projects, and on successfully accessing different sources of financing.

In the long-term approach, private financing would increase so that commercial banks would support capital finance and more public-private partnerships would be in place.

Endnote

1 COM (2001) 304 final.

Annexes

Annex 1: **Assistance Provided in the Frame of Priority Environmental Investment Programme**

This annex presents the assistance provided since the beginning of the PEIP project to the countries of South Eastern Europe (SEE), on strategic investment planning. There is also a description of the methodology of assistance in strategic infrastructure investment planning. The PEIP's successful methodological approach, could be applied in other regions or countries developing their approach towards investment planning.

Assistance provided between 2001 and 2002

Assistance provided to the ministries focused on:

- identifying regional priority environmental sectors — after identifying relevant indicators, the priority sectors were agreed: the reduction of sulphur-dioxide emissions and municipal waste generation, along with treatment and sewage treatment;
- compiling a set of hot spots, which consists of 143 locations where multiple, priority environmental problems appeared, given together with their descriptions; and
- analysing national environmental priorities, which provided an overview of SEE countries' policy responses and their relation to regional environmental priority sectors and hot spots.

The methodology was developed for compiling a list of priority environmental investment projects. A system of criteria was developed, along with a project identification form, and the prioritisation exercise was conducted. As a result, the prioritisation process identified 79 high priority projects in Albania (four), Bosnia and Herzegovina (five), Croatia (10), the former Yugoslavia Republic of Macedonia (31), and Serbia and Montenegro, including seven in Montenegro, 16 in Serbia and six in Kosovo (territory under interim UN administration).

The set of regional environmental priorities and the list of priority projects were compiled for the first time on a regional level based on a unified methodology and with the active participation of stakeholders. This regional approach is especially important when looking at the contributions of the SEE region to European environmental pressures and, more generally, to the pressures on a global scale.

The unified methodology, which was approved by the SEE countries, introduced a systematic approach to investment planning which highlighted the regional aspect of environmental protection over political and historical divisions. Additionally, this unified approach provided an objective, long-term, strategic direction to investment planning in the SEE region, which shall complement national investment planning.

The agreed criteria and systems of weights and scores provided an objective and systematic approach to setting priorities.

The active involvement of stakeholders (SEE ministries of environment, the donor community, international financing institutions and NGOs) assisted and enabled the PEIP's development. This participation was relevant to the existing situation in the SEE countries and enabled the gathering of the most up-to-date information.

The PEIP's development helped to build the capacity of the stakeholders, especially at the ministries of environment. Training was provided on project cycle management, investment planning, priority setting, prioritising investment projects and identifying investment programmes. The developmental process had also played an important role in stimulating information exchange and cooperation between SEE countries.

The results of the PEIP's development were linked to intense efforts by the countries to achieve practical results. The PEIP can serve as a vehicle for potential networking activities aimed at developing effective mechanisms for identifying and implementing environmental initiatives. The results of

the PEIP's development in 2001-2003 provided a good basis for long-term investment planning, especially in relation to the challenges connected with the Stabilisation and Association Process and the implementation of EU requirements.

Assistance provided between 2003 and 2005

The assistance provided focused on:

- identifying investment projects that are in line with EU requirements;
- formulating project concepts to be presented to interested financial institutions; and
- identifying appropriate institutions willing to finance investment projects.

Technical assistance provided on institutional strengthening included:

- analysing options for financing environmental investment projects in SEE and developing donor profiles to assist project proponents seeking finance;
- analysing the status of environmental investment planning, which provides an overview for decision makers in the SEE region, and for donors in the process of transposing key investment-heavy EU directives;
- developing a database of sites (hot spots), screened against the requirements of selected key investment-heavy EU directives;
- formulation of 33 project concepts in the water, air and waste sectors in line with key-investment-heavy EU directives in order to assist project proponents in the 33 pilot sites in acquiring donor finance;
- analysing critical conditions for developing bankable projects in the region; and
- updating the list of priority environmental investment projects.

Special focus on capacity-building workshops

Within the capacity-building activities of the PEIP, six regional workshops were held with the participation of project proponents from the selected 33 pilot sites in air, water and waste sectors and for the sector experts from the ministries of environment. These sites were selected from among an initial set of hot spots identified during the first phase of the PEIP. The workshop was attended by local and international experts, as well as representatives of international financing institutions.

The first series of workshops was carried out during 2004 on the development of environmental investment projects. On November 11-12 water sector experts gathered together in Belgrade, Serbia and Montenegro; on November 29 to December 1 training was provided for water sector experts in Dubrovnik, Croatia; and in Skopje, the former Yugoslavia Republic of Macedonia, a workshop was held on the air sector.

The rationale of the workshop was the increase in demand from SEE countries for environmental infrastructure investments that are in line with EU requirements. Two aspects of tackling environmental investment challenge were emphasised during the workshop: at the national level, the need to assure that environmental investment planning complies with EU directives, and at the local level the challenge of formulating and developing individual investment projects. During the waste sector investment project workshop, issues related to brownfield development were also addressed.

During the first part of the workshop, participants were informed of the water, waste and air policy of the European Union in general. Specific details were given on the requirements of the investment-heavy directives and their investment implications. An overview followed of the status of investment planning in SEE countries.

In the second part, different methods and techniques were introduced to participants to identify investment projects and develop an investment programme at the national level. Furthermore, training was provided on critical conditions and information needed for investment planning at the local level.

The third part dealt with prerequisites and criteria required for developing bankable projects. During this session, representatives from pilot sites described the relevant environmental situation and spelled out investment needs. In the fourth part, an overview was given on the financial sources for environmental investment projects. Also, training was provided on how to start up constructive dialogue with international financing institutions and other donors. Session participants were also introduced to some lessons

learned while developing water, waste and air investment projects in the SEE region. During the working group exercises, participants identified barriers to implementing key investment-heavy directives at the national level, conducted project prioritisations, and developed financing strategies for priority projects.

From the first series of workshops, it can be concluded that most of the participants had insufficient knowledge about IFIs, and thus information provided on bankable projects and opening up dialogue with IFIs proved useful. There was a need to share more information on project preparation and selection criteria of banks, in particular of IFIs. During the workshops, participants made it clear that there is great demand for information about different sources of grant and loan financing. The introduction of concrete case studies and best practices was a successful way of sharing know-how, and participants indicated the need to continue on this line. Participants proved to have little experience in brownfield development and public-private partnerships, which should be addressed with further capacity-building efforts.

The second series of PEIP workshops was conducted in 2005 on May 16-24 in Durres, Albania. Separate workshops were held for the air, waste and water sectors. The themes of the workshops built on the experiences and feedback received from the previous trainings held in 2004 and thus attempted to address the needs formulated by participants by placing special emphasis on the setting of tariffs and developing financially viable environmental investment projects.

Similarly to the previous workshops, sectoral experts from ministries of environment or other relevant bodies, as well as local-level project proponents from pilot sites, attended the trainings. The workshops were also attended by local and international experts, as well as representatives of international financing institutions.

The first part covered issues related to PEIP work on pilot sites. During this part, the assessment of pilot hot spots was presented, and steps forward were identified. The second part provided an overview of existing economic instruments in the air, water and waste sectors and introduced guidelines for their application in investment projects. Participants also shared experiences of their countries pertaining to the practical utilisation of economic instruments. During this session, the different methods of calculating the financial viability of investment projects, assessing project costs and setting the level of tariffs were introduced. At the water sector workshop, participants became acquainted with the Latvian example and the Danube Investment Support Facility's work in financing water sector projects.

The third part dealt with the provision of case studies on previous investment projects in the air, water and waste sectors. During the air sector workshop, the session also touched on issues of using renewable energy resources for tackling air sector pollution. In the water and waste sector workshops, issues related to procurement and their relevance to developing and implementing waste and water sector projects were introduced.

The fourth part covered the most important aspects of project preparation and sources of financing for environmental investment projects. During the working group exercises, participants identified constraints for developing projects and learned about ways to assess the financial viability and bankability of their projects.

Based on the feedback received from the participants, it can be concluded that there is a great need to develop skills in calculating implementation costs and a project's financial viability. The introduction of EU procurement procedures proved to be useful information and forecasted the administrative capacities that need to be developed at national levels. Case studies from different countries, including Poland and Latvia, compliance with the EU directives and PEIP work with the pilot sites were identified as the most interesting issues covered during the workshop. However, further efforts need to be made to build up capacities in developing and enforcing of economic instruments, including charges and tariffs, and preparing bankable environmental investment projects.

In summary, besides providing comprehensive training on project preparation, the workshops provided an opportunity for local project proponents, national decision makers at the ministerial level and the donor community to clarify differing requirements and expectations, as well as to exchange experiences in preparing and financing investment projects. Furthermore, it projected further needs for capacity building of project proponents, and national decision makers in particular, with relation to the preparation of bankable and financially viable projects.

Annex 2: **Municipal Financing of Investment Projects and Bankability**

TABLE 26

Service obligations

	ALBANIA	BOSNIA AND HERZEGOVINA	CROATIA	FORMER YUGOSLAV REPUBLIC OF MACEDONIA	SERBIA AND MONTENEGRO		
					UNMIK Kosovo	Republic of Serbia	Republic of Montenegro
Legal Obligation of NUTS IV-V level to provide:							
Water service	Yes	Municipality everywhere (in some cases cantons in FBiH)	Yes	Yes		Yes	
Sewage collection and wastewater treatment	Yes	Municipalities everywhere (in some cases cantons in FBiH)	Yes	Yes		Yes	Yes
Solid waste collection and disposal	Yes	Municipalities (in some cases cantons; private firms collect, municipalities/ cantons dispose)	Yes			Yes	Yes
Ownership of service provision utilities (public share only)	Yes	51% in municipal and/or cantonal ownership	Yes	Yes		State ownership remains	Yes
Regulation of organisational forms	Yes			Yes		Yes	Yes
Licensing, permits		Both entities permit, some cantons in FBiH	Yes	Yes		Yes	Yes
Sectoral planning and decisions		Municipalities (strategic planning at entity and/or cantonal level)	Yes	Yes	Yes	Yes	
Capital investment responsibility	Yes	Entity	Yes	Yes			Yes
Setting user fees and prices	Yes	Municipalities	Yes[1]	Yes			Yes
Imposing pollution fines and fees		Entity, entity/canton in FBiH		Yes			Yes

1 Municipalities can set charges earmarked for financing municipal environmental infrastructure.

TABLE 26

Regulation of muncipal borrowing: survey results

	ALBANIA	BOSNIA AND HERZEGOVINA		CROATIA	FORMER YUGOSLAV REPUBLIC MACEDONIA	SERBIA AND MONTENEGRO		
		Federation BiH	Republika Srpska			UNMIK Kosovo	Republic of Serbia	Republic of Montenegro
Possibilities for municipalities to borrow	Yes	No (under 2005 Budget Execution Law, all borrowing is banned)	Yes	Yes	Yes	No (no regulation)	Yes	Yes
Possibility to borrow for capital improvements	Yes		Yes	Yes	Yes	No	Yes	Yes
Possibility to borrow for operational purposes	No				Only short term	No	Yes	Only short term
Debt stock limit[2]	No		20% of revenues	Overall national limit			50% of realized revenue	
Debt service limit[3]	No			20% of revenue	Should not exceed total operational revenues	No	15% of revenue, 5% for short term	10% of revenues
Type of bank to borrow from			Any	Only Croatian banks	Not regulated		"Suggested list" from national bank; any bank in reality	Any
Borrow in foreign currency			Yes (with MoF approval)	No (must borrow in national currency)	Yes (if from foreign bank)	Yes		Yes (Euro is official currency)
Borrow from foreign bank			Yes	No	Yes, with positive MoF opinion and government approval		Yes (need government approval)	Yes (with government approval)
Possibility to issue bonds	No		No	Yes (with government approval)	Yes (procedure under development)		Yes (but only sold to the republic or domestic financial institution)	Yes
Type of authorisation needed			Council	Local council	Local council		Local council	Local council

2 The total amount of debt is limited, usually in relation to assets or the size of the annual budget.

3 The amount of interest and principal payments due in a year is limited, usually in comparison to the annual budget, or in comparison to certain revenues. This varies widely by entity and around the world.

TABLE 26

Regulation of muncipal borrowing: survey results (continued)

	ALBANIA	BOSNIA AND HERZEGOVINA		CROATIA	FORMER YUGOSLAV REPUBLIC MACEDONIA	SERBIA AND MONTENEGRO		
		Federation BiH	Republika Srpska			UNMIK Kosovo	Republic of Serbia	Republic of Montenegro-
Higher level approval needed			MoF	Yes (national govern-ment and MoF)	Yes (only if borrowing from abroad - MoF)		"Opinion" of MoF needed (Ministry of Economy, Ministry of Capital Investment, Ministry of Local Self Gov't)	Yes (national govern-ment)
Borrowing to be reported to higher level			Yes	Yes	Yes		Yes (repeated every six months)	Yes
Availability of sovereign guarantees	Yes	No (complete borrowing ban in 2005)	Yes (MoF approval)	Yes (overall national guarantee limit)	Yes (optional, need for Parliamen-tary act)		Domestic guarantees are mandatory; MoF assists in setting loan and repayment provisions	Yes (but optional)
Possibility of automatic guarantees upon approval of borrowing			No	No				
Municipalities have borrowed for environmental projects	Not yet	From donors and commercial banks	From donors and commercial banks	Yes[4]	Not yet	No	Yes[5]	Podgorica, EIB
Commercial or subsidised borrowing		Subsidised and commercial	Subsidised and commercial	Both				Subsidised
Possibility for communal enterprises to borrow directly	Yes, in practice, though not regulated	Varies by municipality	Varies by municipality	Yes, with municipal approval (except those under the Utility Act)	No		Yes, with municipal council approval	Yes, only with municipal approval

4 In Croatia, local and regional self-government units borrow from commercial banks in the country and from the Croatian Bank for Reconstruction and Development (HBOR). HBOR and the Fund for Regional Development have a special status both in terms of property (state-owned) and the position of beneficiaries within the country's budget. Croatian Waters, a public institution for water management, traditionally provides loans to local units/utility companies for infrastructure investments projects in water supply, sewage and wastewater treatment under favourable conditions. For that purpose, Croatian Waters primarily uses revenue from the water protection charge, which it collects from legal and natural persons that release wastewater.

TABLE 26

Regulation of muncipal borrowing: survey results (continued)

International financial institutions (IFIs) such as the World Bank and the European Bank for Reconstruction and Development (EBRD) have been present in co-financing environmental infrastructure projects in Croatia for many years. Some of the important projects in the water and waste sectors have been implemented, e.g. the ECO Kastela Bay project (water supply and wastewater treatment in the Kastela Bay near the Town of Split) in Split-Dalmatia County, including several towns and municipalities in which the World Bank, EBRD and HBOR (as implementing agency) are involved; the Coastal Cities Water Pollution Control Project (wastewater treatment in 177 coastal and island-based towns and municipalities) (World Bank); Rehabilitation of the Municipal Landfill Prudinec (Jakusevac), Zagreb (EBRD), and the project Zagreb Waste Water Treatment Plant BOT (EBRD, Kreditanstalt fur Wiederaufbau — KfW).

5. Four examples from Serbia are:

- Sustainable Integrated Solid Waste Management Plan for Pcinjski Region, financed by the World Bank;
- City of Subotica Municipal Infrastructure Reconstruction, financed by EBRD;
- Reconstruction of Roads in Serbia, financed by EIB; and
- Rehabilitation of the Energy Sector in Serbia, financed by EIB.

TABLE 27

Local finances and creditability

	ALBANIA	BOSNIA AND HERZEGOVINA	CROATIA	FORMER YUGOSLAV REPUBLIC MACEDONIA	SERBIA AND MONTENEGRO		
					UNMIK Kosovo	Republic of Serbia	Republic of Montenegro
Active commercial banks		Yes	Yes (see below)[6]	No	No	Yes (see below)[7]	
Legal sources of revenue available for municipal debt service	Not applicable	Own revenues	All budget revenues, except for assistance			All original and transferred public revenues	Most municipal revenues, including shared taxes
User fees collected by operators available for debt service	Not applicable	Not known	Yes	Yes	No	Yes	Yes (but insufficient for operational and maintenance costs)
Municipalities have operational surpluses available for debt service	No	No (most have zero surpluses or hidden deficits)	Yes	If yes, then they are available	No	Not generally, but available	Yes
Municipality has defaulted on a loan and consequences	No	No (no known procedure)	No (no procedure in place besides exercising contracts)	No cases, no procedure, accounts may be blocked upon court order	No	MoF would "take responsibility" for loans, intercept revenues	No procedure in place

TABLE 27

Local finances and creditability (continued)

	ALBANIA	BOSNIA AND HERZEGOVINA	CROATIA	FORMER YUGOSLAV REPUBLIC MACEDONIA	SERBIA AND MONTENEGRO		
					UNMIK Kosovo	Republic of serbia	Republic of Montenegro
Percentage of local government authorities with multi-year financial forecasting and planning	None	Only those taking part in donor assistance programmes	100%, and all are required to prepare three-year budgets	About 15-20%, the larger settlements have multiyear budgets	None	Less than 20%	N/A
Ownership of assets for delivering public services	Local government in theory; the state in practice	Municipalities in RS; cantons and/or municipalities in FBiH	Local govern-ment	Mostly local government, except for assets serving more than one locality	Kosovo Trust Agency	Issue of municipal property not settled (assets are in state ownership with right to use at local level)	Local govern-ment
Municipalities' revenues per head maximum and minimum	EUR 28-42 at ALL 123 to EUR 1	None given by survey	Maximum EUR 3,183, minimum EUR 43 at HRK/EUR 7.37		Insufficient population data	Max: EUR 42, min: EUR 25	Max: EUR 229, min: EUR 75
Annual share of public investments in municipalities' total expenditures	22% on average, small communities 15%, large munici-palities 22-28%	None given by survey	About 25%		Approx. 17%, but not broken down by munici-palities	No data but probably around 1%	23% spent on aver-age nation wide; or 27 EUR/ capita; Minimum 0 EUR/ capita, maximum in Budva, 42% of budget invested
Change in annual share of public investments in municipalities' total	Growing by 10-12% per year in 2005 and 2006						Fluctuating tendency, overall decline since 2002

6 Commercial banks in Croatia provide loans for co-financing environmental projects. If a commercial bank is interested in participating in a bid for financial loan to local or regional units, it has to act in line with the Public Procurement Act and the Budget Act. In 2005, HBOR indicated that Croatian commercial banks are highly interested in co-financing environmental projects. HBOR has introduced a special loan programme: the Loan Programme for Financing Projects of Envrionmental Protection, Energy Efficiency and Renewable Energy Sources, and established cooperation with a number of Croatian commercial banks (Banka Kovanica d.d., Varazdin; Credo banka d.d., Split; Erste & Steiermarkische bank d.d., Rijeka; HVB Splitska banka d.d., Split; Hypo Alpe-Adria-Bank d.d., Zagreb; Istarska kreditna banka Umag d.d., Umag; Karlovacka banka d.d., Karlovac; Nova banka d.d., Zadar; Partner banka, d.d., Zagreb; Podravska banka d.d., Koprivnica; Raiffeisenbank Austria d.d., Zagreb; Slatinska banka d.d., Slatina;

TABLE 27

Local finances and creditability (continued)

Slavonska banka d.d., Osijek; Zagrebacka banka d.d., Zagreb) linked to the cooperation agreement signed between HBOR and the Environmental Protection and Energy Efficiency Fund (FEPEE). The fund subsidises interest rates for borrowers, through which HBOR's Environmental Financing Programme will be implemented under the same conditions for all commercial banks. The programme consists of a broad scope of environmental projects.

7 In the Republic of Serbia, commercial banks such as Yu-bank, Delta bank; Vojvodanska Banka, HVB-Bank, Societe General Bank, and Pro-Credit Bank are active in the municipal sector.

TABLE 28

Regulations and tariff-setting

	ALBANIA	BOSNIA AND HERZEGOVINA (both entities, differences highlighted)	CROATIA	FORMER YUGOSLAV REPUBLIC MACEDONIA	SERBIA AND MONTENEGRO		
					UNMIK Kosovo	Republic of serbia	Republic of Montenegro
Who sets tariffs?	Municipalities	Municipalities	Service companies set prices, municipalities approve	Municipalities	KTA unit sets all such rates	Municipalities	Municipalities
Follow national guidelines in setting tariffs	Yes	No	Utility Act	National guidelines	Yes	No	No
Need for approval or review by higher levels of government or by a sectoral agency	Water Regulatory Body approves tariffs for water sector	No	No	No	KTA unit	No	No
Do tariffs cover operational and maintenance costs? Investment cost? Amortisation costs?	In principle, tariffs cover operation and maintenance	No, collection rates are low, and services are treated as social benefit in both entities	As a min. tariffs cover operational and maintenance costs. Budget, special charges, connection fees may cover capital costs		Tariffs do not cover operational costs fully; no funding for capital costs	Tariffs cover only operation and maintenance in most cases	Tariffs cover operation and maintenance only if collections 100%; they average 60%, and do not cover amortisation or investment

TABLE 28

Regulations and tariff-setting (continued)

	ALBANIA	BOSNIA AND HERZEGOVINA (both entities, differences highlighted)	CROATIA	FORMER YUGOSLAV REPUBLIC MACEDONIA	SERBIA AND MONTENEGRO		
					UNMIK Kosovo	Republic of serbia	Republic of Montenegro
How long are tariffs fixed?	Annual	Multi-year (rare adjustments in low inflation environment)	Multi-year		Annual	Annual	Multi-year
Public-private partnerships		Yes	Yes				
Examples of investment projects with the system of tariffs in place, where the sponsor was a local government at the NUTS V level		Zenica, Doboj, Tuzla solid waste management; World Bank Solid Waste project will have private operators	East Slavonia Regional Waste Management Centre, and the Porec Landfill (being established)				Ulcinj garbage truck project, and the Tivat Water Concession
Tariffs levels in the listed PPP are for long term and approved by		Yes	(Being established)				Yes (collection rate over 90% in Tivat)

TABLE 29

Tax and other incentives offered to create municipal joint service associations

	ALBANIA	BOSNIA AND HERZEGOVINA (both entities, differences highlighted)	CROATIA	FORMER YUGOSLAV REPUBLIC MACEDONIA	SERBIA AND MONTENEGRO		
					UNMIK Kosovo	Republic of Serbia	Republic of Montenegro
Possibility to receive tax exemptions for polluters investing in environmental improvements. Are the tax incentives larger or smaller than the fines polluters have to (or should) pay?	None	No	Lower charges for waste-water treatement investment	A 100% deduction for certain environ-mental investments	EKO fund is in prepara-tion to be financed by user charges and fines	Yes (incentives for certain capital investments); no details; tax incentive smaller than fines	None
Possibilities for municipalities to establish common associations, funds, cooperatives or other bodies	Yes ("person of joint competen-cies" is created)	Yes	Yes (muni-cipalities may jointly found companies, public institutions, etc. to operate infrastruc-ture)	Yes	Not regulated	Yes (may even associate with foreign local govern-ments)	Yes (may form "inter-municipali ty" cooper-ative); For example, coastal water coopera-tive (Nov. 2003)
If yes, are respective municipalities eligible to fund those a) from own budgets or b) by financial transfers?	Own budget	Not defined by law or regulation	Either, depending on structure	Not regulated	Not regulated	From own budget	Not indi-cated
Who is eligible to be owner of assets constructed?	Subject to contractual agreement, ownership by association is not ruled out	Not defined by law or regulation	Mostly local authorities/ utility companies	Subject to contractual arrangement, but could become property of the association itself		Association may become owner according to its statute (if municipal property rights restored)	

Annex 3: **Results of Prioritisation Exercise**

TABLE 30

Results of prioritisation

NO.	PIF NO.	SECTOR	PROJECT TITLE	STRATEGIC	GEO-GRAPHICAL	HEALTH AND ENVIRONMENT CRITERIA
ALBANIA						
			Weights	**0.2**	**0.15**	**0.3**
			Maximum number of points (875)	**225**	**100**	**100**
			Weighted maximum number of points	**45**	**15**	**30**
1	Al-1	WT	Rehabilitation and Extension of Water Supply and Sewerage System for Durres City	225	75	100
2	Al-2	WS	Management Plan and Construction of Landfill for Urban Solid Waste in Elbasan	225	100	100
3	AL-3	WS	Urban Waste Management and Construction of Sanitary Landfill in Fier City (and Lushnja and Diujaka)	225	75	100
4	AL-8	WS	Management Plan for Urban Solid Waste of Shkodra City and Construction of Sanitary Landfill	225	75	100
5	AL-9	WT	Water Supply Rehabilitation Design in the Municipality of Vlora, Albania	125	100	100
6	AL-10	WT	Sewerage System for Fier City	225	75	100
7	AL-11	WT	Rehabilitation and Extension of Water Supply and Sewerage System in Lezha Town	225	75	50
8	Al-12	WT	Rehabilitation and Extension of Water Supply and Sewerage System in Saranda	225	75	50
9	Al-13	WT	Construction of the Sewerage System and Treatment Plant for the Town of Koplik	225	25	75
10	Al-14	WT	Construction of Sewerage System and Treatment Plant for the Town of Velipoja	225	75	50
11	Al-15	WT	Works for the Construction of the Sewage System and Treatment Plant for the Town of Lac	225	25	100
12	Al-16	WS	Works for the Construction of the Sanitary Landfill for Town of Lac	225	75	100
13	Al-17	WT	Construction of a Common Sewerage Water Treatment Plant for Tirana and Surroundings	225	100	100
15	Al-19	WT	Works for the Construction of the Sewerage System and Treatment Plant for Ballsh	225	75	75
16	Al-20	WS	Works for the Construction of Sanitary Landfill for Ballsh	225	75	75
17	Al-21	WS	Works for the Construction of the Sanitary Landfill for Vlora	225	75	100
18	Al-22	WS	Works for the Construction of the Sanitary Landfill for Saranda	225	75	50

	LEGAL CRITERIA	TECHNICAL CRITERIA	SOCIAL CRITERIA	ECON. AND FINANCIAL CITERIA	PROJECT MATURITY	SCORE IN POINTS	WEIGHTED SCORE	FINAL PERCENTAGE
	0.1	**0.05**	**0.05**	**0.1**	**0.05**			**100**
	100 **10**	**100** **5**	**50** **2.5**	**100** **10**	**100** **5**	**122.5**		**%**
	100	100	0	0	0	600	101.25	83
	0	50	0	0	0	475	92.5	76
	0	50	0	0	0	450	88.75	72
	0	50	0	0	0	450	88.75	72
	0	50	50	0	0	425	75	61
	0	50	50	0	0	500	91.25	74
	100	50	0	0	0	500	83.75	68
	100	0	0	0	0	450	81.25	66
	100	100	50	0	0	575	88.75	72
	100	100	0	0	0	550	86.25	70
	100	100	50	0	0	600	96.25	79
	100	100	0	0	0	600	101.25	83
	0	100	50	0	0	575	97.5	80
	100	100	0	0	0	575	93.75	77
	100	100	0	0	0	575	93.75	77
	100	100	0	0	0	600	101.25	83
	100	100	0	0	0	550	86.25	70

TABLE 30

Results of prioritisation (continued)

NO.	PIF NO.	SECTOR	PROJECT TITLE	STRATEGIC	GEO-GRAPHICAL	HEALTH AND ENVIRONMENT CRITERIA
BOSNIA AND HERZEGOVINA						
			Weights	**0.2**	**0.15**	**0.3**
			Maximum number of points (875)	**225**	**100**	**100**
			Weghted maximum number of points	**45**	**15**	**30**
1	BH-1	Air	National Air Quality Monitoring	225	100	100
2	BH-2	WT	Sewage System and WWTP for Bijelina City	225	75	100
3	BH-3	WT	Protection of Modrac Accumulation as a Source of Water Supply for Tuzla Canton	75	75	100
4	BH-4	WT	Construction Sewage System and Wastewater Treatment Plant for Kljuc Municipality	75	75	50
5	BH-5	WS	Construction of Landfill Site for a Group of Municipalities	225	25	100
6	BH-6	WT	Construction of WWT System for the City of Mostar	225	75	100
7	BH-7	WT	Construction of the Wastewater Treatment System for the City of Bileca	225	75	75
8	BH-9	Air	Flue Gas De-sulphurisation Project in Thermo Power Plant Kakanj	225	100	100
CROATIA						
			Weights	**0.2**	**0.15**	**0.3**
			Maximum number of points (875)	**225**	**100**	**100**
			Weighted maximum number of points	**45**	**15**	**30**
1	HR-5	Air	Establishment of the National Network for Permanent Air Quality Monitoring in the Republic of Croatia	225	75	100
2	HR-10	WS	Development of Regional Waste Management Centre at Mariscina	225	100	100
3	HR-11	WS	Remediation and closing down of the Sovjak Pit, Primorje-Gorski Kotar County	225	100	100
4	HR-15	WS	Remediation of the Asbestos Polluted Mravinacka kava site	175	100	100
5	HR-16	WS	Remediation of the Red Sludge Lagoon of the Former Alumina Factory, Obrovac (location highly polluted by hazardous waste)	75	100	100
7	HR-18	WS	Dubrovnik-Neretva County Center for waste management	225	100	100

	LEGAL CRITERIA	TECHNICAL CRITERIA	SOCIAL CRITERIA	ECON. AND FINANCIAL CITERIA	PROJECT MATURITY	SCORE IN POINTS	WEIGHTED SCORE	FINAL PERCENTAGE
	0.1	**0.05**	**0.05**	**0.1**	**0.05**			**100**
	100	**100**	**50**	**100**	**100**			
	10	**5**	**2.5**	**10**	**5**	**122.5**		**%**
	100	100	50	0	50	725	110	90
	0	100	0	0	50	550	93.75	77
	0	0	0	50	50	350	63.75	52
	0	0	0	0	50	250	43.75	36
	0	50	0	50	75	525	90	73
	100	0	50	0	75	625	110	90
	100	100	50	50	75	750	105	86
	100	100	50	0	50	725	110	90
	0.1	**0.05**	**0.05**	**0.1**	**0.05**			**100**
	100	**100**	**50**	**100**	**100**			
	10	**5**	**2.5**	**10**	**5**	**122.5**		**%**
	100	100	50	0	50	700	106.25	87
	0	100	50	0	75	650	101.25	83
	100	100	50	0	50	725	110	90
	100	100	50	0	75	700	101.25	83
	100	50	50	0	50	525	77.5	63
	0	100	0	0	50	575	97.5	80

TABLE 30

Results of prioritisation (continued)

NO.	PIF NO.	SECTOR	PROJECT TITLE	STRATEGIC	GEO-GRAPHICAL	HEALTH AND ENVIRONMENT CRITERIA
CROATIA (continued)						
8	HR-19	WS	Regional Centre for Waste Management of East Slavonia	225	100	100
9	HR-20	WS	Remediation and Closing of the Landfill Kokojevica	75	100	50
10	HR-21	WS	Construction of a Regional Waste Management Centre (RWMC) in NW Croatia	225	100	100
11	HR-22	WS	Remediation and Expansion of the Municipal Waste Landfill Sagulje-Ivik	75	100	100
12	HR-23	WS	Remediation of Municipal Waste Landfill Sitnica	75	100	50
13	HR-24	WS	Establishment of the Regional Waste Management Centre of the County of Split-Dalmatia	225	100	100
14	HR-25	WS	Establishing of the Regional Centre for Waste Management and the Remediation of the Existing Landfill Locations, Zadar County	225	100	100
15	HR-26	WS	Integration and Modernisation of the Waste Management System in the Territory of the County of Istria	225	100	100
16	HR-27	WS	Remediation of Existing Landfill Goricica, Sisak, Phase 2	75	100	100
17	HR-28	AIR	Study to Assess District Heating Systems that Are Fired on Renewable Sources of Energy (Wood Waste from the Croatian Forestry Enterprise), including project preparation	125	75	100
18	HR-29	WT	Waste Water Treatment Plant for Bjelovar City	225	75	75
19	HR-30	WT	Waste Water Treatment Plant for City Drnis	75	75	50
20	HR-31	WT	Upgrade of the Wastewater Treatment Plant in the Town of Garesnica	75	75	50
21	HR-32	WT	Waste Water Treatment Plant for Osijek	225	75	100
22	HR-33	WT	Construction of the Wastewater Treatment Plant in Krapina, Croatia	125	75	50
23	HR-34	WT	Waste Water Treatment Plant for Sisak	225	75	100
24	HR-35	WT	Waste Water Treatment Plant in Slavonski Brod	225	100	100
25	HR-36	WT	Construction of the Wastewater Treatment Plant in Vrbovec, Croatia	125	75	50
26	HR-37	WT	Construction of The Wastewater Treatment Plant in Zapresic, Croatia	125	75	75

	LEGAL CRITERIA	TECHNICAL CRITERIA	SOCIAL CRITERIA	ECON. AND FINANCIAL CITERIA	PROJECT MATURITY	SCORE IN POINTS	WEIGHTED SCORE	FINAL PERCENTAGE
	100	100	50	0	75	750	111.25	91
	0	100	50	100	50	525	65	53
	100	100	50	0	75	750	111.25	91
	50	100	50	100	50	625	85	69
	0	100	50	0	50	425	55	45
	100	100	50	0	50	725	110	90
	0	100	50	0	50	625	100	82
	100	100	50	0	50	725	110	90
	100	100	50	100	75	700	91.25	74
	100	100	0	0	50	550	83.75	68
	100	100	50	75	50	750	106.25	87
	100	100	50	0	50	500	61.25	50
	100	100	50	0	75	525	62.5	51
	0	100	50	0	50	600	96.25	79
	0	100	0	0	50	400	58.75	48
	100	100	50	75	75	800	115	94
	100	100	50	0	75	750	111.25	91
	100	100	50	0	50	550	71.25	58
	100	100	50	50	50	625	83.75	68

TABLE 30

Results of prioritisation (continued)

NO.	PIF NO.	SECTOR	PROJECT TITLE	STRATEGIC	GEO-GRAPHICAL	HEALTH AND ENVIRONMENT CRITERIA
FORMER YUGOSLAV REPUBLIC OF MACEDONIA						
			Weights	**0.2**	**0.15**	**0.3**
			Maximum number of points (875)	**225**	**100**	**100**
			Weighted maximum number of points	**45**	**15**	**30**
1	MA-1	WT	Wastewater Treatment System for the City of Skopje (three WWTPs)	225	100	100
2	MA-2	WT	Wastewater Treatment Plant for the Town of Prilep	225	75	100
3	MA-4	WS	Treatment of HCH Waste from Former Lindane Production Plant in Organo-Chemical Industry, AD OHIS, Skopje	225	100	100
4	MA-7	WT	Rehabilitation of the Wastewater Treatment Plant at Organo-chemical Industry, AD OHIS, Skopje	225	100	100
5	MA-9	WT	Wastewater Treatment Plant for the City of Bitola	225	75	100
6	MA-13	Air	Air Desulphurisation in TTP Oslomej/Kicevo	225	75	100
7	MA-19	WT	Wastewater Recycling Project in TPP Kicevo/Oslomej	150	75	100
8	MA-20	WT	Konsko Hydromelioration System, City of Gevgelija	150	100	75
9	MA-26	WT	Construction of Combined WWTP at a Pig Farm, Gradsko	225	100	50
10	MA-27	WT	Construction of WWTP at a Pig Farm, Kumanovo	225	100	50
11	MA-28	WT	Construction of Combined WWTP in the Village of Stenje, Prespa Lake	225	100	50
12	MA-29	WT	Construction of Hydro-system Orizarska Reka	125	75	100
13	MA-30	WT	Wastewater Treatment Plant for the City of Veles	225	100	100
14	MA-31	WT	Dam on the River Otinja with Associated Facilities, City of Stip	50	75	100
15	MA-32	WS	Reclamation, Enlargement and Recultivation of Electrostatic Precipitator Ashes Landfill, Oslomej TPP	225	100	100
16	MA-33	Air	Decreasing Air Pollution from the Sugar Factory, Bitola	50	75	100
17	MA-34	Air	Decreasing Air Pollution in Medical Clinical Centre, Skopje	50	75	100
18	MA-35	WT	Protection of the Ohrid Lake by Construction of Sewage System in the Settlement of Leskoec and its Connection to the Ohrid City Collector	225	100	50

	LEGAL CRITERIA	TECHNICAL CRITERIA	SOCIAL CRITERIA	ECON. AND FINANCIAL CITERIA	PROJECT MATURITY	SCORE IN POINTS	WEIGHTED SCORE	FINAL PERCENTAGE
	0.1	**0.05**	**0.05**	**0.1**	**0.05**			**100**
	100	**100**	**50**	**100**	**100**			
	10	**5**	**2.5**	**10**	**5**	**122.5**		**%**
	100	50	50	0	75	700	108.75	89
	100	50	50	0	75	675	105	86
	100	50	50	0	75	700	108.75	89
	100	50	50	0	75	700	108.75	89
	100	100	50	0	75	725	107.5	88
	100	50	50	0	0	600	101.25	83
	100	50	50	0	75	600	90	73
	0	50	50	0	75	500	76.25	62
	100	100	50	0	50	675	95	78
	100	100	50	0	50	675	95	78
	100	100	50	0	50	675	95	78
	100	75	50	0	50	575	85	69
	100	100	50	0	75	750	111.25	91
	0	75	50	50	100	500	67.5	55
	100	50	50	0	50	675	107.5	88
	100	75	50	0	75	525	71.25	58
	100	75	50	0	75	525	97.5	80
	100	50	50	0	100	675	95	78

TABLE 30

Results of prioritisation (continued)

NO.	PIF NO.	SECTOR	PROJECT TITLE	STRATEGIC	GEO-GRAPHICAL	HEALTH AND ENVIRONMENT CRITERIA
SERBIA AND MONTENEGRO **Republic of Montenegro**						
			Weights	**0.2**	**0.15**	**0.3**
			Maximum number of points (875)	**225**	**100**	**100**
			Weighted maximum number of points	**45**	**15**	**30**
1	MN-1	WS	Remediation Measures for Mojkovac Mining Waste Disposal Site	225	100	50
2	MN-2	Air	Reconstruction and Increase of the Capacity of Electrostatic Precipitators in Pljevlja Thermal Power Plant	75	100	75
3	MN-3	Air	Desulphurisation of Flue Gases in Thermal Power Plant Pljevlja	225	100	75
4	MN-4	WS	Rehabilitation and Remediation Measures for the Inactive Coal Pit Borovica, and for the Disposal Sites Jagnjilo and Grevo	125	100	75
5	MN-5	WS	Closure and Remediation of the Existing Waste Disposal Site and Construction of a New Podgorica Landfill along with Recycling Centre	225	100	100
7	MN-7	WT	Emergency Rehabilitation of the Existing Podgorica WWTP and Construction of a New Plant in a Location outside the City Area (including the main conveyor from the existing site to the new location)	225	100	100
8	MN-8	WT	Construction of Sewage System in the Town of Tivat, and Expansion and Reconstruction of Sewage System in the Town of Kotor	225	100	100
9	MN-9	WS	Construction of Hazardous Waste Landfill in Montenegro	225	100	100
9	MN-10	WT	Sanitation of the Existing Wastewater Facility in Niksic	225	75	100
Republic of Serbia						
			Weights	**0.2**	**0.15**	**0.3**
			Maximum number of points (875)	**225**	**100**	**100**
			Weighted maximum number of points	**45**	**15**	**30**
1	SR-1	WT	Upgrade And Extension of the Kolubara-Prerada WWTP	225	100	100
2	SR-2	Air	Decreasing Air Pollution from Zastava Energetika	150	100	100

	LEGAL CRITERIA	TECHNICAL CRITERIA	SOCIAL CRITERIA	ECON. AND FINANCIAL CITERIA	PROJECT MATURITY	SCORE IN POINTS	WEIGHTED SCORE	FINAL PERCENTAGE
	0.1	**0.05**	**0.05**	**0.1**	**0.05**			**100**
	100	**100**	**50**	**100**	**100**			
	10	**5**	**2.5**	**10**	**5**	**122.5**		**%**
	100	50	50	0	75	650	93.75	77
	100	50	50	0	75	525	71.25	58
	100	50	50	0	0	600	97.5	80
	100	50	50	0	0	500	77.5	63
	100	100	50	50	75	800	116.25	95
	50	50	50	0	75	650	103.75	85
	0	50	50	0	0	525	95	78
	100	50	0	0	0	575	102.5	84
	100	50	50	0	0	600	101.25	83
	0.1	**0.05**	**0.05**	**0.1**	**0.05**			**100**
	100	**100**	**50**	**100**	**100**			
	10	**5**	**2.5**	**10**	**5**	**122.5**		**%**
	100	75	50	0	0	650	106.25	87
	100	50	50	0	50	600	92.5	76

TABLE 30

Results of prioritisation (continued)

NO.	PIF NO.	SECTOR	PROJECT TITLE	STRATEGIC	GEO-GRAPHICAL	HEALTH AND ENVIRONMENT CRITERIA
Republic of Serbia (continued)						
3	SR-3A	WS	Waste Management System for Kragujevac: Component A: Rehabilitation with Enlargement and Recultivation of Existing Waste Disposal Site (Jovanovac) with Its Safety Detainment	225	75	100
4	SR-3B	WS	Waste management system for Kragujevac (Component B: Construction of waste recycling center)	225	75	100
5	SR-3C	WS	Waste Management System For Kragujevac: Component C: Construction of New Landfill at Vitliste	125	25	100
6	SR-4	Air	Revitalisation of Copper Smelter and Sulphuric Acid Plants in Bor	225	100	100
7	SR-5	WT	Construction of New Wastewater Collector for the Krivelj River (Including Reconstruction of 80 m of the Collector and the Monitoring Systems for Tailings Dams) Bor Mine	225	75	100
8	SR-6	Air	Improvement of the Regulation System in Kolubara A Thermal Power Plant	225	75	100
9	SR-7	WT	Rejuvenation of Lake Ludas	175	100	100
10	SR-8	WT	Improving the sewage system of the oil Refinery in Nis	125	100	100
11	SR-9	WT	Upgrade and Extension of Wastewater Treatment Plant in Subotica	225	75	100
12	SR-10	WS	Equipment Supply for Re-Cultivation and Preservation of Ash and Slag Depot at Kolubara	225	75	100
13	SR-11	WT	Construction of Sewage System in the Town of Vladicin Han	175	75	50
14	SR-12	WS	Construction of New Vladicin Han and Surdulica Landfill along with Recycling Centre	225	25	75
16	SR -14	WS	Rehabilitation and Remediation Measures for Inactive Waste Disposal Site Near Vranje Town	225	25	100
17	SR-15	WS	Sustainable Integrated Solid Waste Management in Krusevac	225	75	100
18	SR-16	WS	Investment into Measures of Technical Systems for Environmental Protection from the Existing Trash Dump in Nis	225	100	100
125	SR-17	WS	Re-Cultivation and Upgrading of the Existing Landfill "Badra" in Svilajnac	125	75	75
20	SR -18	WS	Plant for Briquette Production in Kolubara	225	75	100

	LEGAL CRITERIA	TECHNICAL CRITERIA	SOCIAL CRITERIA	ECON. AND FINANCIAL CITERIA	PROJECT MATURITY	SCORE IN POINTS	WEIGHTED SCORE	FINAL PERCENTAGE
	100	75	50	0	75	700	106.25	87
	100	75	50	0	75	700	106.25	87
	100	100	0	0	50	500	76.25	62
	100	50	50	0	50	675	112.5	92
	0	50	0	50	75	575	97.5	80
	100	100	50	0	0	650	103.75	85
	0	100	50	0	0	525	87.5	71
	100	50	50	50	75	650	93.75	77
	100	100	50	75	75	800	115	94
	100	50	50	0	0	600	101.25	83
	100	50	50	0	0	500	76.25	62
	100	100	50	0	75	650	92.5	76
	100	50	50	0	0	550	93.75	77
	100	100	50	50	75	775	112.5	92
	100	100	50	0	75	750	111.25	91
	100	100	50	0	75	600	80	65
	100	100	50	0	75	725	107.5	88

TABLE 30

Results of prioritisation (continued)

NO.	PIF NO.	SECTOR	PROJECT TITLE	STRATEGIC	GEO-GRAPHICAL	HEALTH AND ENVIRONMENT CRITERIA
Kosovo (territory under UN interim administration)						
			Weights	**0.2**	**0.15**	**0.3**
			Maximum number of points (875)	**225**	**100**	**100**
			Weighted maximum number of points	**45**	**15**	**30**
1	KO-1	WT	Construction of a Regional Wastewater Treatment Plant in Ferizaj	225	75	100
2	KO-2	WT	Construction of Regional Wastewater Treatment Plant in Mitrovica	225	75	100
3	KO-3	WT	Construction of a Regional Wastewater Treatment Plant in Pristina	225	75	100
4	KO-5	Air	Improvement of Air Quality in Kosova A and B Thermal Power Plants.	225	100	100
5	KO-7	WT	Construction of a Regional Wastewater Treatment Plant in Prizren	225	75	100
6	KO-8	WT	Construction of a Regional Wastewater Treatment Plant in Gjilan	225	75	100
7	KO-9	WT	Construction of a Regional Wastewater Treatment Plant in Gjakova	225	75	100
8	KO-10	WT	Construction of a Regional Wastewater Treatment Plant in Peja	225	75	100
9	KO-11	Air	Establishment of the National Network for Permanent Air Quality Monitoring	225	100	100
10	KO-12	WT	Waste Water Treatment of Pb-Zn Artana Mine, Trepca	225	100	100
11	KO-13	WS	Rehabilitation and Closure of Tailing Area in MIP-Trepca	225	100	100
12	KO-14	WS	Rehabilitation of Ash Landfills of the Kosova A and B Power Plants: Transport of Ashes from the Existing Landfills to the Mining Sites at Mirash and Bardh	225	100	100
13	KO-15	WS	Rehabilitation of Ash Landfills of the Kosova A and B Power Plants: Complete Re-cultivation of Existing Ash Landfills	225	100	100
14	KO-16	WS	Rehabilitation of Ash Landfills of the Kosova A and B Power Plants: Method of Hydrosemy	225	100	100

	LEGAL CRITERIA	TECHNICAL CRITERIA	SOCIAL CRITERIA	ECON. AND FINANCIAL CITERIA	PROJECT MATURITY	SCORE IN POINTS	WEIGHTED SCORE	FINAL PERCENTAGE
	0.1	**0.05**	**0.05**	**0.1**	**0.05**			**100**
	100	**100**	**50**	**100**	**100**			
	10	**5**	**2.5**	**10**	**5**	**122.5**		**%**
	0	100	50	0	50	600	96.25	79
	0	100	50	0	0	550	93.75	77
	0	100	50	0	75	625	97.5	80
	100	100	50	0	50	725	110	90
	0	100	50	0	75	625	105	86
	0	100	50	0	75	625	97.5	80
	0	100	50	0	75	625	97.5	80
	0	100	50	0	75	625	97.5	80
	100	100	50	0	50	725	110	90
	100	100	50	0	75	750	111.25	91
	100	100	50	0	75	750	111.25	91
	100	50	50	0	50	675	107.5	88
	100	75	50	0	50	700	108.75	89
	100	75	50	0	50	700	108.75	89

Annex 4:
Examples of Hot Spot Strategies

Waste sector example

Existing situation

The site at Dedovaca has been used as a deposit for household and commercial waste, including hazardous waste, for 22 years. It covers a total surface area of approximately 38 hectares, located near the source of the city's drinking water, which means the site could be polluting surface and underground water. In recent years, approximately 35,000 cubic metres of waste have been deposited at the site annually, of which approximately 90 percent is household waste and 10 percent industrial waste. The total quantities deposited and waste composition are unknown. Currently, no wastes are being deposited on site, nor is this envisioned in the future.

The site does not have any emission reduction measures in place (e.g. lining systems). Environmental problems are caused by emissions to surface and ground water, uncontrolled landfill gas emissions, and gaseous emissions caused by fires on-site, in particular as the site is close (100 metres) to a settlement and adjacent to agricultural land.

According to the information provided by the Sana public communal enterprise, the major emissions from the site come from waste detergents, herbicides and artificial fertilisers. This is remarkable as it would mean that, in addition to the above specified waste types, residues of these materials have also been deposited.

Little quantitative information is available on the types and quantities of emissions, apart from a brief monitoring report from the Hydroengineering Institute in Sarajevo (June 2004) (See Table 31 for summary).

Assessment and project formulation

Based on the information provided, it is difficult to assess the exact proportions of the environmental problems caused by the site.

TABLE 31

Priority Environmental Investment Programme for South Eastern Europe

COUNTRY	Bosnia and Herzegovina (FBiH)
HOT SPOT NAME	Rehabilitation of landfill at Dedovaca (Sanski Most, BiH)
SECTOR	Waste
AIM OF THIS DOCUMENT	• To formulate an investment project; • To provide recommendations to the project proponent for follow-up; • To indicate the needs for technical assistance and investment to the donor community and international financing institutions.

Summary

PROPOSED FORMULATED PROJECT	Remediation of Sanski Most landfill Or Rehabilitation of landfills and landfill development in the Sanski Most region
PRELIMINARY COST	Unknown
NEEDS FOR TECHNICAL ASSISTANCE AND INVESTMENT	Need for technical assistance Need for investment

TABLE 32

SWOT analysis of the Dedovaca project

STRENGTHS	WEAKNESSES
The site has been clearly identified and characterised. Basic information on the types of waste deposited is available.	Detailed information on the wastes deposited is missing. Information on environmental impacts is missing.
OPPORTUNITIES	**THREATS**
The remediation of this landfill is part of a bigger regional scheme that involves the establishment of a new regional taken.	Pollution will occur if no protective measures are Financial resources for remediation are missing.

Given the natural conditions of the site, in particular the water permeable subsoil and the absence of any lining/cover provisions, it is indeed very likely that both groundwater and surface water are being polluted by leachate from the site. The type of water pollution depends on the composition of the waste deposited. As the majority of waste deposited is municipal waste, it is likely that the leachate will at least contain both high concentrations of chemical oxygen demand/nitrogen, and a variety of heavy metals and other micropollutants. However, according to the information provided by Sana, leachate containing (waste) detergents, herbicides and artificial fertilisers is also emitted.

It is not possible to judge the status of any permits or plans developed for the site, as no specific information was provided. The maximum waste tipping fee — BAM 3.00 (EUR 1.5) per cubic metre — is insufficient to bring about environmental protection and remediation measures. Table 32 provides a SWOT analysis of the available information.

The European Landfill Directive (99/31/EC) aims, by way of stringent operational and technical requirements on waste and landfills, to provide for measures, procedures and guidance to prevent or reduce as far as possible negative effects on the environment from landfilling of waste, during the entire life-cycle of the landfill.

A landfill is defined as a waste disposal site for the deposit of waste onto or into land (i.e. underground), including:

- internal waste disposal sites (i.e. a landfill where a producer of waste is carrying out its own waste disposal at the place of production); and
- a permanent site (more than one year) which is used for the temporary storage of waste.

The Dedovaca landfill meets these criteria.

The directive specifies in Article 14 that member states shall take measures in order that landfills which have been granted a permit, or which are already in operation at the time of transposition of this directive, may not continue to operate unless a conditioning plan has been prepared by the operator and, on the basis of that plan, competent authorities have taken a decision on whether operations may continue and how the plan shall be implemented. Remediation of the site will therefore contribute to achieving compliance with the European Landfill Directive requirements. Two principal options can be distinguished for the site to be part of an investment project.

Remediation of Sanski Most landfill

This project focuses solely on the installment of remediation measures at Sanski Most landfill.

The approach is preferable if a detailed assessment of the environmental situation at Sanski Most landfill shows an imminent and continued threat to a considerable number of people, or a threat to a unique nature reserve. This might be the case if the emissions from the landfill include significant concentrations of detergents, herbicides and artificial fertilisers.

This situation would allow the definition of an investment project that takes extensive remediation measures, including the installment of a landfill cover and sheet piling, and the implementation and operation of a groundwater extraction and purification facility. In this case, the requirement investments would be of such an order of magnitude that a stand-alone project can be justified.

Rehabilitation of landfills and landfill development in Sanski Most region

If the landfill can be regarded as an uncontrolled municipal solid waste dump, and there is no such imminent threat (as in the previous case), it is most likely necessary to consider the Sanski Most landfill in terms of a broader landfill project. In this situation, the remediation measures for Sanski Most landfill will concentrate on applying a top cover to the landfill, minimising further rainfall infiltration and thus leachate production. Comparable measures are taken for other existing dumps in the region, while one of the existing sites or a new site is developed into a regional sanitary landfill with appropriate provisions. In this case, the investments in rehabilitation of Sanski Most landfill are insufficient to allow for a separate project.

Recommendations

Short-term steps

Based on the information provided, the Sana enterprise would be the best choice to rehabilitate the Sanski Most landfill, as they have been identified as the body principally responsible for the site. However, as the project may have a regional approach rather than be limited to the Sanski Most landfill, cooperation between local authorities would need to be identified and an overall project proponent specified.

As it is likely that the rehabilitation of the landfill site will be part of a larger, regional project, it is important to define as early as possible the region under consideration (e.g. geographical boundaries, number and characteristics of landfills/dumps in that region).

As far as collecting background information on environmental problems and risks:

- More background information on the contamination of adjacent surface water should be collected through a sampling/analysis programme.
- More background information on the contamination of groundwater should be collected through a sampling/analysis programme.
- More background information on the contamination of soil should be collected through a sampling/analysis programme.
- More background information on gaseous emissions should be collected through a sampling/analysis programme.
- Estimates should be made on the quantities and types of waste deposited on site.
- A slope and dam stability monitoring programme should be set up and executed.

At the very least, background environmental information should be obtained so that the nature and extent of the problems is clear to potential financiers of a feasibility study.

Immediate, low cost measures include:

- Proper (temporary) fencing should be installed in order to prevent open access to the site;
- The local availability and associated costs of materials that might serve as a temporary cover material for the dump should be investigated (e.g. soil, clay, sand, limestone)
- Depending on availability, a temporary cover of (part of) the site should be applied, in order to reduce the most imminent emissions.

Based on the assessment of environmental problems and risks, funding shall be sought for a comprehensive feasibility study. Elements that require particular attention in the specification of the terms of reference for a feasibility study are the following:

- What elements shall it contain? (See proposed specification below.)
- Shall it be carried out for this site solely or for more sites (as in a regional approach)? The latter is preferable, if it is likely that the extent of the site and its environmental problems are such that as a stand-alone project it is large enough to be eligible for financing, and rather a regional approach has to be followed. This means that sites (in the region) need to be identified that should be included in the feasibility study.
- Who shall carry it out? As resources and technical know-how are limited in house, it is very likely that external assistance is required to carry out the feasibility study.

Medium-term steps

Based on the above results, a comprehensive feasibility study should be carried out. These results should form the basis for specifying in more detail the envisaged investment project. This feasibility study shall include, but not be limited to, the following elements:

- collection and assessment of disposal site background data (geological, hydro-geological, nearby surface waters)

- collection and assessment of additional site data on emissions and risks (surface water, groundwater, soil, air, dam/slide stability, etc.); and
- assessment of most appropriate technical remediation measures to prevent further emissions and reduce risks:
- assessment of technical options for landfill cover (natural clay, geotextiles etc.);
  - assessment of the need for sheet piling;
  - assessment of technical options to improve dam/slide stability, if necessary;
  - assessment of water/leachate management options (extraction, treatment, and tinkering);
  - assessment of options to control landfill gas emissions (application of top covers, active extraction/flaring systems, etc.);
  - assessment of required investments and operational costs for the technical options identified.

If it is likely that remediation of the site will be part of a regional project, the aforementioned assessment should also be carried out for other locations under consideration. The most suitable location for implementing a high-standard sanitary landfill should be identified. The overall investment projects (which sites, what shall be done, what shall it cost) should be defined.

Defining a financing strategy will include assessing if and to what extent co-financing of the remediation of this site and others (in case of a regional approach) is affordable, in particular by reserving money from future gate fees at the newly constructed sanitary landfill. This will depend on the height of the fees that can reasonably be charged out to waste producers (polluter-pays principle), and the amount of money from this fees that can be reserved for old dumpsite remediation purposes. The affordability of fee payments will be one of the determining factors as to which IFI loans and grants can be applied for.

On the basis of the fee affordability assessment, the following questions shall be answered:

- Which IFIs can be approached?
- What specific criteria do IFIs apply to assessing projects, and how can this project best fit in?

Long-term steps

Funds should be secured and the investment project should be executed, which involves:

- approaching IFIs;
- introducing fees or charges (if applicable) in order to secure co-financing and application of the polluter-pays principle; and
- amending proposed projects on the basis of negotiations with IFIs.

Water sector example

Existing situation

Podgorica and the surrounding areas have about 170,000 inhabitants. About 80,000 of them (55 percent) are connected to the sewer system. It is planned that the connection to the sewer will grow towards 70 percent in 2011, 80 percent in 2021 and 90 percent in 2031. Besides municipal wastewater there is also industrial wastewater. In order to treat the industrial wastewater, in 2031 there will be a need for wastewater treatment plant (WWTP) with a capacity of 275,000 population equivalents (p.e.). It is estimated that about 20-25 percent of the wastewater comes from industry.

Podgorica has a WWTP for mixed wastewater. The plant has been in operation since 1978. The treatment has the following stages: screening of grit and grease; settling; and biological treatment. The sludge is treated in digestion tanks. The plant is designed for 55,000 p.e. but receives 85,000-90,000 p.e. The plant has not been upgraded or modernised since 1978. For that reason, the equipment of the plant is very outdated. Throughout the year, on average there are around 170 failures, which means that every year there is no treatment for 38 days. When repair work is under way, the wastewater goes directly into the Moraca River without any treatment. Sometimes during repairs, the wastewater receives only mechanical treatment.

Wastewater from the population and from industry that is not connected to the treatment plant goes to septic tanks. The result is groundwater pollution at many sites. The wastewater that is connected to the sewer causes serious environmental problems in surface water. The river is polluted and the adjacent lake is subject to eutrophication. The effluent does not meet the standards of the current legislation of the Republic of Montenegro.

Surface water is not a source of drinking water. The Moraca River has to meet the standards following A2, C, II Category, which means that the water can be used for drinking water and is also suitable for the cyprinid fish.

TABLE 33

Priority Environmental Investment Programme for South Eastern Europe

COUNTRY	Serbia and Montenegro
HOT SPOT NAME	Podgorica
SECTOR	Water
AIM OF THIS DOCUMENT	• To analyse the situation at the hot spot based on available documentation; • To formulate an investment project; • To provide recommendations to the project proponent for follow-up; • To indicate the needs for technical assistance and investment to the donor community and international financing institutions.

Summary

PROPOSED FORMULATED PROJECT	Upgrading a wastewater treatment plant (first phase of the project) and construction of a new treatment plant (second phase of the project) for Podgorica, Montenegro (275,000 p.e.) The project has the following parts: • upgrade the existing WWTP; • build a new plant; • replace parts of the collection system; and • enlarge the collector system.
PRELIMINARY COST	Upgrading existing plant: EUR 1.3 million New plant: EUR 37 million Maintenance: EUR 2.7 million per year
NEEDS FOR TECHNICAL ASSISTANCE AND INVESTMENT	Technical assistance is needed to prepare the project, including: • assistance to the project proponent in gathering all relevant information; • design of a wastewater treatment plant and associated project components; • verification of investment, and operation and management costs; and • verification of tariff levels. Financial support for the investment cost is needed. The likely source would be international financing institutions.

At the moment 55 percent of the population is connected to the sewer system. Analysis of the existing plans suggests that this percentage will grow to 90 percent by 2031. The present sewer system has been in existence for the last 35 years. There are several problems with the system: lack of maintenance, lack of cleaning of the sewer and the disposal of solid waste in manholes lead to many blockades in the system. Plans exist to maintain the system regularly and to replace parts of it.

The capacity of the plant has to be enlarged and upgraded, but there is no space for extension. For that reason, a new plant has to be constructed on another site. Additionally, it is proposed to erect a pumping station on the premises of the old plant.

A feasibility study was conducted in 2004. According to the study, it seems to be feasible to upgrade the existing WWTP, together with the construction of a new plant, which is planned to be operational by 2009. The new plant will treat all wastewater connected to the sewers. It will be a modern plant with all the facilities needed to remove nutrients. The sewage sludge will be treated in a digester. After digestion, it will be transported to a landfill. There is a tariff system for drinking water and a tariff for the discharge of wastewater to the sewer.

The new plant will receive municipal and industrial wastewater. The industrial wastewater will be pre-treated in order to meet the standards for discharging to the sewer. The capacity of the plant is calculated from the expectations of industrial growth and the industrial connections to the sewer. For the amount of municipal wastewater, there are estimates of population growth, the current and planned connection to the water supply

system, and the water consumption rate. The study claims that it must be possible to lower the consumption per capita from 288 litres per day to 175 litres per day. A site has been appointed for the new plant, but there is no permit to use it for the construction of a WWTP.

As part of the feasibility study, a calculation is made for the costs for the first and second phases. The emergency rehabilitation of the plant will cost EUR 1.3 million. The construction of the new plant, including a conveyor from the old to the new plant, will cost EUR 37 million. Maintenance of the new plant is expected to cost EUR 2.77 million per year. It will be carried out by the Public Enterprise for Water Supply and Sewage Podgorica (WSS), which is owned by the municipality. WSS Podgorica is responsible for the sewage system and the WWTP.

A preliminary EIA has been undertaken as part of the feasibility study of the project.

Assessment and project formulation

There is a serious surface water pollution and groundwater pollution problem at the hot spot.

At the same time, the initial work was done to find a possible solution.

The main reasons for the project are to fulfil the Surface Water Act of the Republic of Montenegro and to meet the standards of the EU Directive on Urban Waste Water Treatment (1991L0271-20/11/2003). These goals can be achieved by implementing a project on Upgrading an old Waste Water Treatment Plant (first phase of the project) and construction of a new WWTP (second phase of the project) at Podgorica, Montenegro for 275,000 p.e.

The project consists of:

- upgrading the existing WWTP;
- building a new plant;
- replacing part of the collection system; and
- enlarging the collector system.

The following remarks can be made regarding the proposed project:

- The existing WWTP has a capacity of 55,000 p.e. but receives a load of about 90,000 p.e. The plant is old, outdated and has mechanical problems. There are plans to upgrade the existing plant with an investment of EUR 1.3 million. This investment would be a bridge to 2009, when a new plant should be operational. Therefore it would be important to have a new discussion about the cost and need during the design phase of the plant.
- There is a collection system that connected to 55 percent of the population in Podgorica. It is planned to extend the percentage of connected population to 70 percent by 2011. The investment costs for the operation, maintenance and extension of the sewage system are unknown (not included in the feasibility study for the WWTP).
- There is an existing institution in charge of the sewage system of WWTP: the Public Enterprise for Water Supply and Sewage Podgorica. From the given information about the maintenance level of the sewer system, at the moment, it may be important to consider a special training for the staff on maintenance needs. It is also important to teach the population what to do and what not to do with a sewer system.
- The capacity of the new plant depends on discharges by industry and the population. It is planned to reduce consumption from 288 l/day to 175 l/day. This estimate was made for the purposes of the feasibility study. It is acknowledged that a combination of measures is needed to reduce water consumption, including reducing water losses, increasing tariffs, and education of the public.
- The feasibility study is based on the assumption that part of industry will remain connected to the sewer system and that new industries will connect. Pre-treatment of industry wastewater is also planned to meet the standards.
- For the erection of the new plant, there is a rough figure of EUR 37 million. There is a system of tariffs for drinking water and for the discharge and treatment of wastewater. The system covers population and industry. From a rough calculation, it seems that the income from tariffs could be sufficient to cover services. The question of whether full cost recovery can be achieved cannot be answered yet. The investment costs seem to be in the right direction. The feasibility study addresses cost recovery issues in detail and proposes a plan for tariff increases.
- A new plant is planned to be constructed in 2009, but this date seems overly optimistic. The fact that the new site does not have a permit to be used as a site for a WWTP, for example, could lead to considerable delays. In addi-

TABLE 34

Recommendations

AREA	RECOMMENDATION
Location of the site	The situation regarding obtaining the necessary permits should be clarified.
Technical preparation of the site	• Information should be gathered about the technical preparation of the site in order to ensure that the site is large enough for the treatment plant and all adjacent facilities. • The amount of wastewater to be produced in the future needs to be determined as a preliminary step for the plant design. • A preliminary design of the treatment plant together with all the construction items on collectors and pumping stations should be developed. *Some of the issues are covered by the feasibility study.*
Natural conditions of the site	Information should be gathered about the natural conditions at the site. At the very least, the report should cover information about the structure of the ground, groundwater and the level of groundwater in relation to the discharge point.
Solving environmental problems at the site	Information should be gathered about the current situation with regard to the discharge of partly treated wastewater and information about the future. The report should include groundwater pollution. *Some of the issues are covered by the feasibility study.*
Emission reduction measures	Total emissions must be calculated for the current and future situation. In this respect, it is also important to understand the role of storm water when it is discharged to the river. It is also important to investigate how the sewer system is separated from the storm water collection system. *Some of the issues are covered by the feasibility study.*
Permits, responsibilities and planning	After all technical reports and the preliminary design have been provided, it is clear which permits are necessary before construction can start. The responsibilities have to be made clear. This means that it must be clear who is responsible for the construction, at what moment the maintaining party will take over and what the criteria for the takeover are. *When all the permits are there and the financing is clear, planning can take place.*

tion, a period of four years for design, preparing all the documentation, and the selection of consultants and constructors might be too short. It can be expected that the new plant will be operational after six to eight years.

Table 35 contains a SWOT analysis of the plant.

Future steps

Table 34 contains a list of recommendations. Table 36 presents the steps that would need to be conducted by the project proponent in implementing the project.

TABLE 35

SWOT analyses for the Podgorica plant

STRENGTHS	WEAKNESSES
A site has been identified for the new plant. An organisation already exists for maintenance, and there is already a system of tariffs. A feasibility study was conducted in 2004.	The time schedule is not realistic. The future site does not have the correct permit.
OPPORTUNITIES	**THREATS**
The potential is there for a good, bankable project that could serve as a good example in the region.	The people who would work on the site may not possess the right skills. The planned capacity of the plant might not be right (unknown future situation). Enforcement and collection of tariffs may be insufficient.

TABLE 36

Steps toward project implementation

STEPS	
Short term (6 months)	• Gathering all relevant information (as indicated in the table above); • Obtaining financial coverage for technical assistance for project preparation; • Preliminary design of the WWTP including connecting works and upgrading the existing WWTP; • Verification of investment needs and maintenance costs; • Verification of levels existing tariffs.
Medium term (6-18 months)	• Obtaining all necessary permits; • Conducting environmental impact assessment; • Definite design and definite investment needs and maintenance; • Design of financial coverage for the investment.
Long term (beyond 18 months)	• Assurance of financial coverage; • Selection of constructor of the works; • Start of construction works.

Annex 5: **Project Identification Form for Waste Sector Projects**

PROJECT INFORMATION FORM — WASTE

Part A — General information

Please read the attached guidance before filling in the form

Country

Sector

Project submission date

Project code (filled by the REC)

Project title

A1 Information about foreseen implementing agency

A1.1 Name

A1.2 Address

A1.3 Phones

A1.4 Faxes

A1.5 E-mails

A1.6 Person responsible for contacts with the Ministry/Fund

A1.7 Name and function of person responsible for overall project implementation

A1.8 Legal status of the implementing agency

A1.9 Institutions/firms jointly implementing the project (if any)

A1.10 What is the division of responsibilities? (if joint implementation)

A2 Strategic context

VH - very high; H - high; M - medium; L - low; VL - very low; N - none
(mark where appropriate)

		VH	H	M	L	VL	N
A2.1	What priority is allocated to the indicated sector on country level?	☐	☐	☐	☐	☐	☐
A2.2	Does an up-to-date country strategy in this sector exist?	***Yes*** ☐			***No*** ☐		
A2.3	If yes, is the proposed project included in this strategy? How?						
A2.4	What priority is allocated to the project (idea) on a country level?	☐	☐	☐	☐	☐	☐
A2.5	What is the project (idea) priority from the cross-border impact point of view?	☐	☐	☐	☐	☐	☐
A2.6	What is the project (idea) priority from the local point of view?	☐	☐	☐	☐	☐	☐
A2.7	What is the project (idea) priority from the human health protection point of view?	☐	☐	☐	☐	☐	☐
A2.8	What is the project (idea) priority from the country economy point of view?	☐	☐	☐	☐	☐	☐
A2.9	What is the project (idea) priority in terms of addressing an environmental threat of regional importance?	☐	☐	☐	☐	☐	☐
A2.10	Is the project linked to the EU acquis? If yes, which EU directive?	☐	☐	☐	☐	☐	☐

A3 Information about the project

A3.1 Short description of the environmental problem

A3.2 Origins and positive environmental impact of the project

A3.2.1 Project justification

A3.2.2 Project objectives

A3.2.3 Project components (phases)

A3.2.4 Expected positive environmental effects

A3.2.5 Health impact of the project

A3.2.6 Size of population benefiting from the project implementation

A3.2.7 Scale of impact *Regional* *Country* *Cross-border* *(County)* *Local*

A3.3	**Project status**	**Performance [%]**	**Start [MM/YY]**	**End [MM/YY]**
A3.3.1	Pre-feasibility study			
A3.3.2	Feasibility study			
A3.3.3	Detail engineering designs			
A3.3.4	EIA			
A3.3.5	Permits			
A3.3.6	Financing			
A3.3.7	Procurements			
A3.3.8	Construction			
A3.3.9	Operation (for existing projects)			
A3.3.10	Description of critical factors affecting project implementation			

PROJECT INFORMATION FORM

Part B — Waste management

Technical and environmental information on project

B1 Project type

B1.1 Project type

B1.2 Technical description

B1.3 Project location(s) (exact address)

B1.4 Location from the environmental impact point of view (mark where appropriate)

Hot spots	
Downtown area and/or specially protected areas	
Other densely populated areas	
Loosely populated areas	

B2 Status of the ownership title to land and buildings (mark where appropriate)

B2.1	Settled	
B2.2	Not settled	
B2.3	Under settlement (describe status)	

B3 Category of a technological solution proposed (mark where appropriate)

B3.1	Modern	
B3.2	Modern, not widely implemented	
B3.3	Traditional	
B3.4	Old	

B4 Pressure on environment

	Generating intensities	Unit	Before project	After project
B4.1	Municipal solid waste	tonnes/a		
B4.2	Percentage of disposed waste	%		
B4.3	Industrial waste	tonnes/a		
B4.4	Nuclear waste	tonnes/a		
B4.5	Hazardous waste	tonnes/a		
B4.6	Other	tonnes/a		
B4.7	Waste recycling	%		

B5 Stakeholders opinion (mark where appropriate)

B5.1	Positive attitude of authorities, local population and NGOs	
B5.2	Positive attitude of authorities, public protests	

B5.3	Public opinion not informed	
B5.4	Project known, attitudes neutral	
B5.5	Negative attitude of authorities, local population and NGOs	
B5.6	Opinions not known	

PROJECT INFORMATION FORM - WASTE

Part C — Financial information

C1 Investment outlay [K]

C2 Operating costs and revenues due to project implementation [K]

	Before project	After project
Total operating costs		
Total operating revenues		

C3 Financing sources

		[K]		Total	
		Secured	**Needed**	**K**	**%**
C3.1	Own sources				
C3.2	Grants (source: .....)				
C3.3	Loans (source: .....)				
C3.4	Private sector (source: .....)				
C3.5	Other (please specify) (source: .....)				
C3.6	Total				

C4 Need for financing

C4.1 **Technical Assistance:**

- describe the technical assistance needed
- give the estimated cost

C4.2 Investment co-financing:

- describe the elements for which grant financing is needed
- give the amount of grant needed

C4.3 Loan financing:

- specify the capital investment elments for which loan financing is sought
- give the amount of loan needed

C4.4 Describe the implementation schedule by years:

- specify the capital investment elments for which loan financing is sought
- give the amount of loan needed

C5 If a loan is foreseen, please provide information indicated below

C5.1 Who will be the borrower?

C5.2 Who will guarantee the loan (if relevant)?

C5.3 Describe the borrower:

- key activities
- current tariff structure
- plans for tariff increase
- accounts for the previous two years and budget for next year

C5.4 Describe the municipality (if relevant):

- accounts for the previous two years and budget for next year
- existing long-term obligations
- city budget, current surplus, etc.

C5.5 Affordability forecast

Annex 6: **Donor Fiches**

For contact details for all donors see Annex 7.

Donor fiches

AUSTRIA	Austrian Development Agency (ADA)
Information about donor organisation	The agency supports Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including Kosovo (territory under interim UN administration). The priority environmental sectors are: water supply, wastewater treatment, energy efficiency, renewable energies (solar, geothermal energy) and institutional strengthening.
Environmental investment support	The agency provides technical assistance and investment support. A strategy for future assistance is to be developed.
Funding mechanism	The agency supports projects from the public sector (in general below EUR 2 million) in the form of a grant. The rate of support depends on the project; co-financing is obligatory in the majority of cases. Projects have to be in line with country strategies and show strong ownership of the project. Projects have to be considered a priority, being sustainable (socially, environmentally, and economically), and taking into account gender issues and impact on the country's development. The total budget for the SEE countries in 2005 was EUR 17 million and approximately one-third was planned to be spent on environmental projects.

CZECH REPUBLIC	**Ministry of the Environment of the Czech Republic (MoE of Czech Republic)**
Information about donor organisation	Assistance is provided only to Serbia and Montenegro, the only priority country of the region. For the period 2006-2010 the priority areas of assistance are: waste management; cooperation in the field of old ecological loads; drinking water supply; transfer of experiences with modern environmental technologies such as renewable energy and energy efficiency; and cooperation in the field of environmental education.
Environmental investment support	The Ministry of Environment is funding small-scale environmental investment projects in Serbia and Montenegro and provides technical assistance. For the future there are plans to increase assistance to Serbia and Montenegro. As the budget increases every year, it is possible to support smaller projects aimed at solving environmental "hot spots," but there is not enough to support big infrastructure projects.
Funding mechanism	The institution provides grant support, the biggest project having EUR 700,000. The rate of support depends on the project. Eligible beneficiaries include the public sector, municipalities, and NGOs. For 2006 the total budget for environmental projects in Serbia and Montenegro is EUR 500,000. All projects must be in accordance with the Czech Strategy Paper for Serbia and Montenegro.

Donor fiches (continued)

DENMARK	**Ministry of Foreign Affairs of Denmark (MoFA of Denmark)** Information based on the website
Information about donor organisation	The Ministry of Foreign Affairs of Denmark (MoFA) has initiated a Neighbourhood Programme for the EU neighbouring countries to the east and southeast, and also covers the western Balkans. The aim of the programme is to contribute to the promotion of open democratic societies founded on the rule of law and based on stable political and economic development. For the period 2004-2007 a total of DKK 850 million. (about EUR 113.9 million) has been allocated to the programme. The programme is conducted by three ministries: the Danish Ministry of Foreign Affairs, the Danish Ministry of Economic and Business Affairs and the Danish Ministry of the Environment. The MoFA's share of the programme is DKK 730 million. (about EUR 97.8 million).
Environmental investment support	In 2002 MOFA provided support for Serbia and Montenegro, including the United Nations Mission in Kosovo (UNMIK), through the Danish International Development Agency (DANIDA) for environmental policy and management, as well as for the reconstruction of infrastructures for water supply in Mitrovica. In 2003 and 2004, reconstruction assistance was provided to the former Yugoslav Republic of Macedonia to prevent pollution of water sources by providing villages with drainage systems.
Funding mechanism	The Neighbourhood Programme provides assistance to both civil societies and government authorities. The assistance under the Neighbourhood Programme is primarily implemented as larger, coherent programmes, planned on the basis of dialogue with cooperation partners in the recipient countries as well as the Danish resource base. This implies that Danish authorities, organisations, the Danish business community and others are involved in the planning as well as implementation of the programme. Contrary to previous programmes, the Neighbourhood Programme is not open for applications for assistance to individual projects. The programme has a flexible design, which implies that smaller, specifically focused initiatives are carried out alongside the programmes.

GERMANY	**Federal Ministry for the Environment, Nature Protection and Nuclear Safety (BMU)**
Information about donor organisation	The Federal Ministry for the Environment, Nature Protection and Nuclear Safety (BMU) supports Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro. The priority environmental areas are water supply, transboundary river basin management, waste management, and eco-tourism.
Environmental investment support	The BMU does not support environmental investment projects or technical assistance for project preparation. For further information, refer to the Brochure on Advising Assistance Programme and other support activities (2003, PDF version in German, English, Russian) at <www.bmu.de/files/pdfs/allgemein/application/pdf/broschuere_umwp_moeuropa_en.pdf>. Continuation of this support is foreseen for the coming years.
Funding mechanism	The maximum size of a supported project is EUR 250,000, with a maximum co-financing rate of 70 percent. Only grants are provided by the ministry. The application should be feasible and include a project description. The eligible sectors are NGOs and governmental bodies (with 30-80 percent self-contribution by the applicant). The total budget for the region is EUR 100,000-150,000 per year, while environmental projects in 2004 had a budget of EUR 112,000.

Donor fiches (continued)

GERMANY	**Federal Ministry for the Economic Cooperation and Development (BMZ)**
Information about donor organisation	The Federal Ministry for Economic Cooperation and Development (BMZ) supports Albania, Bosnia and Herzegovina, and Serbia and Montenegro. Different sectors are supported in Albania and Bosnia and Herzegovina. In Albania, energy, water supply and sanitation (drinking water, water management, sanitation and solid waste management) are supported, while in Bosnia and Herzegovina municipal water supply and sanitation are the targeted areas. In Serbia and Montenegro, focus is on infrastructure development (e.g. municipal water supply and sanitation, heating systems), energy efficiency, and electricity supply.
Environmental investment support	BMZ is assisting Albania in modernising its energy infrastructure. New regional administration agencies are being set up for the energy sector, thus allowing efficient local operations independent of the central authority. There are also plans to re-establish small private hydropower plants. Germany is supporting Bosnia and Herzegovina in the implementation of necessary water sector investments, the development and implementation of a cost-covering, socially acceptable system of user charges, and improvement of the corporate structure. Development cooperation measures also include training and upgrading infrastructure, and the promotion of the involvement of the private sector. For Serbia and Montenegro, including Kosovo (territory under interim UN administration) an Energy Efficiency Facilitation Fund will be provided in order to support and finance small and medium-sized energy efficiency measures for both the public and private sectors.
Funding mechanism	Both public and private sectors are eligible for support.

GERMANY	**German Development Bank (KfW)**
Information about donor organisation	The German Development Bank (KfW) finances development cooperation on behalf of the Federal Ministry for the Economic Cooperation and Development. The bank supports Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia and Serbia and Montenegro. The priority environmental areas vary from country to country. In Albania, they are the water and energy sectors, as well as support for small and medium-sized enterprises (SMEs). In Bosnia and Herzegovina, the areas are housing, water supply and sanitation, and electricity supply. In the former Yugoslav Republic of Macedonia, they are environmental protection, and the promotion of SMEs. In Serbia and Montenegro, they are water treatment, drinking water supply, sewage disposal, electricity supply and SME support.
Environmental investment support	Primarily directed to water supply, sewage treatment, electricity supply. Technical assistance and consulting is available for project preparation. KfW provides not only loans but also grants and interest rate subsidies. Loans can be promotional loans at market conditions or loans with favourable interest rates. Least developed countries (LDCs) can receive financial cooperation (FC) grants; developing countries receive FC loans at an interest rate of .75 percent for 40 years with 10 years repayment and free grace years. More advanced countries can also receive loans at an interest rate of 2 percent for a term of 30 years, with 10 repayment-free grace years. Loans containing market funds, mixed and composite finance and interest reduction are designed primarily for public infrastructure projects for developing countries. These FC development loans consist of funds raised by KfW and FC funds provided by the German federal government. FC promotional loans, which are loans under conditions similar to the capital market, are also available for more advanced developing countries.

Donor fiches (continued)

GERMANY	**German Development Bank (KfW)** (continued)
	Grants are available for project preparation as well. For environmental protection, social infrastructure, and certain poverty-alleviation and social projects, 25 percent of the FC can be disbursed as a grant even in the countries that are otherwise eligible only for loans. The bank foresees increasing its support for investments and actions aimed at fostering social cohesion and at improving living conditions in the SEE region. It will continue focusing on its priority sectors in close cooperation with the countries from the region and the international community.
Funding mechanism	The size of projects varies and the type of support includes: budget funds provided by the German Federal Ministry for Economic Cooperation and Development (BMZ); FC development loans (mixed and composite finance, interest reduction); and FC promotional loans. Both public and private sectors (SME) are eligible for support.

GREECE	**Ministry of Foreign Affairs of Greece (MoFA of Greece)**
Information about donor organisation	The Greek Ministry of Foreign affairs has developed the Hellenic Plan for the Economic Reconstruction of the Balkans (HiPERB) for the period 2002-2006. After three years of stagnation due to economic, institutional, technical and political shortcomings, the HiPERB was reactivated in 2005. This important five-year plan has a budget of EUR 550 million and undertakes the financing of projects, investments and activities in six Balkan countries, namely Albania, Bosnia and Herzegovina, Bulgaria, the former Yugoslav Republic of Macedonia, Romania, and Serbia and Montenegro (including Kosovo). More specifically, almost half of the allocated amount (EUR 265 million) will be channelled to Serbia and Montenegro (EUR 250 million for Serbia-Montenegro and EUR 15 million for Kosovo), EUR 74.84 million to the former Yugoslav Republic of Macedonia, EUR 70.93 million to Romania, EUR 54.79 million to Bulgaria, EUR 49.89 million to Albania and EUR 19.53 million to Bosnia and Herzegovina. Around 80 percent of the aid allocated will be given directly to the benefiting states. The rest of the 20 percent of the EUR 550 million will be forwarded to the beneficiary Balkan countries in the form of the co-financing of private productive investments directed in the areas of agriculture and processing. Priority areas are the following: • modernisation of infrastructure, particularly in the energy and transportation sectors; • promotion of productive investments; • modernisation of public administration and self-government; • support of democratic institutions/cooperation of parliaments; • support to the rule of law and the welfare state; • addressing economic inequalities; and • support to education and vocational training, to the administrative and scientific potential. Eligible funding areas include: productive investments, infrastructure, energy, institutional building and training.
Environmental investment support	Bilateral Economic Cooperation Programmes have been signed for each state. The plan and the conditions can be found included in each agreement. Albania, for instance, is planned to receive EUR 49.9 million for a five-year period, which could be extended. In Albania, 79 percent is earmarked for major infrastructure projects, 20 percent for supporting private investment plans and 1 percent is at the disposal of the embassy for small projects of an urgent nature. An example of environmental investment support is a waste disposal and water supply network rehabilitation project that provided the municipality of Iliras USD 36,000 in 2003-2005.

Donor fiches (continued)

GREECE	**Ministry of Foreign Affairs of Greece (MoFA of Greece)** (continued)
Funding mechanism	Proposals by the beneficiary countries are received through the respective Greek embassies in the region. Based on the recommendations of the Monitoring Committee, the minister of foreign affairs will accept the inclusion of these proposals in the programme of HiPERB. Upon completion of this procedure, the financing of projects through the five Greek banks already present in the region will start.
	The forms of financial support are: free capital support; the payment of part of the interest for the servicing of loans concluded for the implementation of the above objectives; gratis coverage of operating costs of the Economic Cooperation Programme; and participation, individually or in cooperation with domestic or foreign financial institutions, in equity capital. Eligible entities for financial support include other states, international organisations or regional cooperation institutions.
ITALY	**Italian Ministry for Environment and Territory (IMET) - DG Environmental Research and Development**
Information about donor organisation	The Italian Ministry for Environment and Territory (IMET) supports Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia and Serbia and Montenegro. The 2005 IMET cooperation strategy's major objective in Serbia and Montenegro was to strengthen the local institutional capacity in order to facilitate the ratification of the Kyoto Protocol. The 2006 planned activities mainly focus on the Kyoto Protocol implementation such as identification of the national authority and Clean Development Mechanism project portfolio in Albania, the former Yugoslav Republic of Macedonia and Serbia and Montenegro (a memorandum of understanding is under negotiation with Bosnia and Herzegovina). As a result, the priority areas that may receive support are those mitigating greenhouse gas (GHG) emissions. Another crucial goal to be developed in the Balkans is the deployment of renewable sources to increase the share of renewable energy technologies in the energy mix by promoting an ad hoc financial mechanism (inter alia green certificates).
Environmental investment support	IMET has only co-funded one infrastructure project: Adricosm, which developed a system of short-term forecast and real-time monitoring of the variability of marine circulation of the coastal zones (the partners are Albania, Croatia, BiH and Montenegro). IMET's main goal is to provide assistance to the project preparation. It is supporting Serbian municipalities in drafting pre-feasibility studies for promoting mini hydro-plants and landfill biogas exploitation. The Pancevo Action Programme's aim is to support local institutions and public enterprises in developing pre-feasibility studies towards the remediation of the environmental criticalities (priority areas are air, soil, water and waste). IMET foresees increasing support to South Eastern Europe for environmental projects. For more information, contact the Task Force for Central and Eastern Europe in Belgrade.
Funding mechanism	The size of the projects is from EUR 100,000 to 500,000, with a rate of support of 100 percent plus in kind contribution from a local partner.
	IMET provides grant support. The conditions entail that the project should receive the endorsement of the national authority (priority). The project should also promote relations between the recipient country and Italy. Finally, the project should include monitoring and a final assessment. Eligible sectors are preferably public ones (e.g. financial mechanism schemes), but private sectors (e.g. technology transfer) are also eligible. The total budget for the region is EUR 5-7 million (cumulative from 2004 and the provision for 2006).

Donor fiches (continued)

JAPAN	**Japanese International Cooperation Agency (JICA)**
Information about donor organisation	Founded in 1974, Japan International Cooperation Agency (JICA) is an implementation agency for technical assistance, focusing on systems building, organization strengthening and human resource development that will enable developing countries and countries in transition to a market-oriented economy to pursue their own sustainable socio-economic development. JICA's four main pillars are: 1. aiming for a more result-oriented approach and enhanced efficiency; 2. enhancing transparency for the administration and activities; 3. promoting public participation; and 4. intensifying assistance for peace-building and post-conflict. JICA carries out following activities: • technical assistance projects; • acceptance of trainees; • development studies; • grant aid (surveys, expediting implementation); • emergency disaster relief; • dispatch of Japan overseas cooperation volunteers (JOCV) and senior overseas volunteers (SV); • grassroots technical cooperation; • the Youth Invitation Program; and • the International Cooperation Human Resources Center. JICA is supporting countries in the western Balkans, including: Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro.
Environmental investment and support	• Albania received assistance from JICA to improve environmental policy and administration management. Examples of development studies supported in Albania are the Study on Sewerage System in Metropolitan Tirana (1998) and the Study on the Development Plan for Sewerage System and Sewage Treatment Plant for Greater Tirana (2006). • In Bosnia and Herzegovina, capacity development on water resources management, water supply and sanitation, environmental policy and administration management were supported by JICA. In Bosnia and Herzegovina, JICA carried out a feasibility study on the Waste Water Treatment Plant of Sarajevo City (1999). • In the former Yugoslav Republic of Macedonia, assistance was provided for capacity development on water supply, sanitation and waste management, environmental policy and administration management. Just two examples of JICA support include the Study on Air Pollution Monitoring System (1999) and a Master Plan Study on Integrated Water Resources Development and Management (1999). • In Serbia and Montenegro, JICA supported capacity development on waste management, environmental policy and administration management. • In Croatia, JICA supported environmental policy and administration management. One example is the Study on Water Pollution Reduction at the River Sava Basin (2001).
Funding mechanism	JICA is responsible for the implementation of Japan's official technical assistance. The policy and decision on what projects will be implemented are decided by the Japanese government, namely the Ministry of Foreign Affairs of Japan and related ministries.

Donor fiches (continued)

THE NETHERLANDS	**Ministry of Housing, Spatial Planning and the Environment (VROM)**
Information about donor organisation	The Ministry of Housing, Spatial Planning and the Environment (VROM) supports Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including Kosovo (territory under interim UN administration). Priority areas include: joint implementations to combat climate change, public participation, compliance and enforcement, environmental impact assessment (EIA), and strategic environmental assessment (SEA). VROM supports the EAP Task Force, the Project Preparation Committee, various regional environmental centres, NGOs and UN organisations.
Environmental investment support	At present environmental infrastructure projects are not financed, only feasibility studies via the EBRD fund. VROM finances feasibility studies to prepare ISPA projects and project-related activities of EBRD projects through the Dutch Environmental Technical Co-operation (TC) Fund at the EBRD, which sponsors EBRD's technical assistance activities.
Funding mechanism	The size of projects that can receive support varies from EUR 25,000 to 100,000 within the department, and together with the Dutch Ministry of Foreign Affairs (MOFA) up to EUR 1 million. The support covers up to 100 percent of the project costs.
	VROM finances grants, whose conditions differ per programme, which can be found on at <www.vrom.nl/international>, <www.minbuza.nl> and <www.evd.nl>.
	The budget for environmental projects in SEE differs year to year, depending on demand and availability. In 2005 and 2006 together, around EUR 2 million was available for environment (Ministry of Housing, Spatial Planning and the Environment and Dutch Ministry of Foreign Affairs budget together).

THE NETHERLANDS	**Dutch Ministry of Foreign Affairs (MoFA of the Netherlands)**
Information about donor organisation	The Dutch Ministry of Foreign Affairs (MoFA) supports Albania, Bosnia and Herzegovina, and the former Yugoslav Republic of Macedonia. The priority areas in Albania are strengthening capacities of the Ministry of Environment, raising environmental awareness within the Albanian population, and cleaning up existing pollution. In other countries the projects should address regional environmental issues.
Environmental investment support	MoFA supports environmental investments such as the clean-up of environmental hot spots. It also supports technical assistance for project preparation through their regional environmental expert at the Dutch Embassy in Tirana (covering various projects). The Netherlands is currently preparing a regional environmental programme aimed at increasing cooperation in SEE.
Funding mechanism	The size, type and rate of project support vary and depend on the scope of the Dutch regional environmental programme. The conditions of their support differ per programme. For more information, visit: <www.vrom.nl/international>, <www.minbuza.nl> and <www.evd.nl>. Both public and private sectors are eligible. The total budget for the region in 2005 was EUR 45 million, while for environmental projects in 2005 it is EUR 3 million. In 2006, this will depend on the scope of the Dutch regional environmental programme.

Donor fiches (continued)

NORWAY	**Norwegian Ministry of Foreign Affairs (Mo FA of Norway)**
Information about donor organisation	The Norwegian Ministry of Foreign Affairs supports Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro. The priority areas are water supply, wastewater treatment, and waste management.
Environmental investment support	In some cases the ministry supports environmental investments. It supports technical assistance for project preparation. The strategy for future allocations is subject to Parliamentary decisions. For further information, write to: post@mfa.no (attention to the Western Balkan section).
Funding mechanism	The ministry only supports grants, up to 100 percent of coverage. There is not a fixed amount for projects. The conditions for financing refer to well-defined projects with clear objectives and good documentation, detailed budget and reporting requirements. The eligible sector is preferably the public one, with non-commercial projects and normally with projects of 12 months' duration. The total budget in 2005 is NOK 750 million (EUR 95 million). There is not a fixed budget for the environmental sector.

SWEDEN	**Sida (Swedish Agency for International Development Cooperation)**
Information about donor organisation	The agency supports Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including Kosovo (territory under UN interim administration). Sida field offices are located in Belgrade, Pristina, Sarajevo, Skopje, Tirana and Zagreb. In the Balkans, development cooperation with Croatia will come to an end in the next few years as the country harmonises with the EU. For Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia and Serbia and Montenegro, including Kosovo, EU harmonisation forms the framework for development cooperation and is a powerful incentive in the fight against poverty. Development assistance to the Balkans amounted to approximately SEK 700 million in 2005. The aim of Sweden's development cooperation in Europe is to contribute to the creation of stable democracies that respect human rights rights and equality, and economic transformation and social welfare in those countries that are undergoing processes of transition from centrally planned economies to market economies. Target areas for Sida support are: • environmental policy development and capacity building; • environmental protection — maintenance of eco-systems; • environmental infrastructure and technology; and • environmental improvements in local communities/municipalities.
Environmental investment support	Sida provids investment support to water and wastewater, waste management and heating, and reforming the municipal sector. It also supports industry in cleaner production technologies and management. Sida supports demand-driven environmental improvements, meaning that local communities take the lead on environmental improvements, decides on the costs and is responsible for operation and maintenance.
Funding mechanism	Sida finances feasibility studies, business and organisational development, project implementation support, and investments leading to reduced pollution. For infrastructure improvements environmental impacts and affordability must be assessed, and infrastructure improvement projects need to address institutional aspects. Sida provides complementary financing in the form of grants and credit financing.

Donor fiches (continued)

SWITZERLAND	**State Secretariat for Economic Affairs (seco)**
Information about donor organisation	The State Secretariat for Economic Affairs (seco) supports: Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including UNMIK Kosovo (territory under interim UN administration). Financing is provided by seco for basic public infrastructure (water, energy and waste); policy dialogue with regard to sector reforms for provision of public services; environmental protection, management and monitoring; co-financing with multilateral donors; and environment-friendly trade and technology. Environmental priority areas in the Western Balkans are: water supply and wastewater; river basin management; energy and energy efficiency; environmental protection and monitoring; and energy efficiency and cleaner production by SMEs.
Environmental investment support	Seco supports: energy (electricity generation and distribution); water (supply and sanitation); transport; waste treatment; and district heating. The focus and intensity of seco's activities in SEE is reassessed on a yearly basis. However, there is no significant change in support volume foreseen for the time being. The movement of partner countries towards EU accession may influence future programmes supported by seco.
Funding mechanism	The size of supported projects is large, with a range of EUR 5 to 10 million, covering 50-90 percent of the project cost, depending on the financing capacity of the beneficiary institution. A local contribution, financially and in kind, is normally expected. Only grants are provided, and only the public sector is eligible. The conditions to receive a grant are: project quality (technical, financial, institutional); embedding in a broader strategy or programme; correspondence with seco's sector focus for the respective country (see Country Strategy Notes at <www.seco-cooperation.ch>); local ownership and local contribution. Generally, projects must be submitted to seco or its local cooperation office by the partner government. The total budget in the region is about EUR 12 million, out of which 80 percent is committed for environmental infrastructure projects. For further information, the Infrastructural Financing Unit should be contacted.

SWITZERLAND	**Swiss Agency for Development and Cooperation (SDC) within the Swiss Foreign Ministry**
Information about donor organisation	The Swiss Agency for Development and Cooperation (SDC) supports Albania, Bosnia and Herzegovina, Croatia (limited to one project in the Knin region), the former Yugoslav Republic of Macedonia, and Serbia and Montenegro. The priority areas are: sustainable management of natural resources; preservation of biodiversity; energy efficiency/climate change; and public infrastructure and services. Since 2000, support is also channelled through the Stability Pact. Projects in Eastern Europe are implemented in close cooperation with the State Secretariat for Economic Affairs (seco).
Environmental investment support	The agency supports technical cooperation programmes. Environment investments are supported by another state agency, the State Secretariat for Economic Affairs (seco). SDC will focus on water issues in the future.

Donor fiches (continued)

SWITZERLAND	**Swiss Agency for Development and Cooperation (SDC) within the Swiss Foreign Ministry (continued)**
Funding mechanism	The agency supports various sizes of projects, from CHF 1,000 (EUR 650) up to CHF 1 million (EUR 650,000) per year, and it supports up to 100 percent of the whole project cost. Only grants are supported. The project has to conform with SDC guidelines, and partners must be well known. A coherent project document that includes a logical framework must be provided. Both public and private sectors are eligible. In SEE priority is given to the water sector. The total budget for SEE (including Bulgaria and Romania) in 2005 was about CHF 60 million (approximately EUR 39 million). In 2004 technical cooperation on energy/environment was CHF 6.4 million (EUR 4.16 million). In 2005, CHF 6 million (EUR 3.9 million) approximately for the environmental sector and in 2006 CHF 6 million (EUR 3.9 million) approximately.
UNITED KINGDOM	**Department for Environment, Food and Rural Affairs (DEFRA)** Information based on the website
Information about donor organisation	DEFRA supports Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including Kosovo (territory under interim UN administration). Priority areas are: water, energy efficiency/climate change, biodiversity, public participation, education for sustainable development, and private sector involvement.
Funding mechanism	DEFRA supports various size projects — up to 100 percent of coverage — and accepts only grants. The total budget is GBP 1.5 million (2004-2005).
UNITED KINGDOM	**Department for International Development (DFID)** Information based on the website
Information about donor organisation	DFID supports Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including Kosovo (territory under UN interim administration). The main environmental priority is to ensure environmental sustainability, specifically: promote environmental sustainability, increase access to safe water and sanitation and improve coniditions for residents of rundown urban areas.
Environmental investment support	DFID provides support for technical assistance in general.
Funding mechanism	DFID supports only multi-donor initiatives. It allocated GBP 17 million (EUR 25.2 million) in total assistance in SEE in 2004-05.
UNITED STATES	**U.S. Trade and Development Agency (USTDA)**
Information about donor organisation	The U.S. Trade and Development Agency (USTDA) supports Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro. The priority areas are air quality, hazardous waste management, water treatment, and energy efficiency.

Donor fiches (continued)

UNITED STATES	**U.S. Trade and Development Agency (USTDA)** (continued)
Environmental investment support	The agency funds various forms of technical assistance, feasibility studies, training, orientation visits and business workshops that support the development of a modern infrastructure and a fair and open trading environment.
Funding mechanism	USTDA supports up to 100 percent of project cost. USTDA provides grants, according to the following conditions: the project is a developmental priority for the host country; is likely to receive implementation financing and have a procurement process that provides "equal access" to U.S. firms; has the potential to result in significant US exports during project implementation (at least EUR 10-15 million, about EUR 8.5-13 million); and whether USTDA support will help to level the playing field for U.S. firms relative to foreign competitors. The request for assistance must be made directly to USTDA by the appropriate foreign sponsoring entity (government or private sector). If the foreign sponsoring entity identifies a US firm as partner, then that firm can submit the proposal to USTD. A US firm has to perform the USTDA-funded study. In most cases, USTDA requires the US firm conducting the study to contribute toward the total cost of the study and may require the US firm to reimburse USTDA if the project is implemented and the firm reaps substantial economic benefit. Eligible sectors include the public sector, and, increasingly, the private sector in major infrastructure projects.

UNITED STATES	**United States Aid for International Development (USAID)**
Information about donor organisation	United States Aid for International Development (USAID) supports Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including Kosovo (territory under interim UN administration). The priority areas are water and sanitation (no solid waste or air programmes)
Environmental investment support	USAID cannot provide environmental investment support, as programmes in the region are limited to technical assistance. The focus of USAID's work in this sector and region is on national strategies, performance improvement, and financing options. USAID previously provided this type of support, but now co-funds only the infrastructure component of the Private Enterprise Partnership for Southeast Europe (PEP-SE) program and the International Finance Corporation (IFC) project development facility in Sofia. (PEP-SE provides technical assistance and advisory services to private sector and infrastructure in Albania, Bosnia and Herzegovina, Bulgaria, Croatia, FYR Macedonia, Moldova, Romania, and Serbia and Montenegro. The programme commenced in July 2005 and planned for a five-year period.) Technical assistance is supplied through contracts to US firms. Only the public sector is eligible for financing. For all information: Albania: <www.usaidalbania.org>; Bosnia and Herzegovina: <www.usaid.ba>; Croatia: <www.usembassy.hr/usaid>; Kosovo: <www.usaid.gov/missions/kosovo>; Former Yugoslav Republic of Macedonia: <www.usaid.org.mk>; Serbia and Montenegro: <www.usaid.org.yu>
Funding mechanism	USAID provides grants covering up to 100 percent of project cost for projects of various sizes. The total budget in 2005 was USD 278 million (EUR 235 million). Estimated water and sanitation programmes are less than 5 percent of the total. In the future, support to the region for environmental infrastructure projects will decrease.

Donor fiches (continued)

NAME OF INSTITUTION	**Council of Europe Development Bank (CEB)**
Funding mechanism	The Council of Europe Development Bank (CEB) finances three types of projects/programmes: • individual projects (IPs), which concern a single field of action and a single site, or several sites, but limited in number and technically linked; • sector-based projects (SPs), which are made up of a number of sub-projects in one or several fields of action and come under national or regional development programmes for the sector(s) concerned; and • multi-project programmes (MPs), which are confined to funding a large number of eligible small-scale projects (i.e. awarded a loan not exceeding EUR 5 million), regardless of the fields involved. Borrowers can be the state, or regional and local authorities, as well as public and private financial institutions. Cooperation with the banking sector is increasing in the region. This can be done in four ways: • indirectly, with the state acting as borrower or guarantor (sovereign guarantee) and subsequently on-lending through the banking sector; • with commercial banks as direct borrowers without any sovereign guarantee; • with a financial institution from an EU country as direct borrower for the financing of projects in SEE which receive a contribution from the European Funds (e.g. from the Municipal Finance Facility in favour of municipal infrastructure with KfW Bankengruppe in several CEE countries, including Croatia); or • with a financial institution from an EU country as direct borrower, which then on-lends to a subsidiary established in the CEE countries (or an associated bank) to finance the project (examples in Croatia and Serbia and Montenegro). These operations are subject to analysis of the credit risk incurred by the CEB. Whenever necessary, additional guarantees are set up in order to prevent solvency risks. The CEB's activity in SEE countries is increasing. The environmental sector is considered important for the Bank. Presently, 15-20 percent of the total amount approved concerns environment and prevention of natural disaster projects. A loan request is prepared by the borrower in close cooperation with the CEB's departments. In some cases, the CEB can provide technical assistance in the preparation of the project and during its implementation. CEB finances up to 50 percent of the total project cost in the form of a loan. It finances up to 50 percent of the total eligible cost of the projects. In SEE, this proportion may be increased to 90 percent for public borrowers. Financial terms are negotiated between the borrower and the CEB directly. Loans are provided in different currencies for longer terms with a repayment period of one to five years. In specific cases when the project has a strong social aspect and is in line with the priority objectives of the CEB, interest rate subsidies can be provided through the Selective Trust Account. Once the project has been approved by the Administrative Council, loan agreements are signed and disbursements are generally made in accordance with the progress of the work as reported by the borrower and, if necessary, checked by the CEB. An initial payment not exceeding 25 percent of the approved loan may be made so that the work may begin. The bank carries out regular monitoring, paying attention to the physical progress through on-site visits, compliance with costs, implementation of procurement procedures and achievement of the anticipated social objectives. Upon completion of the project, the bank checks that the funds are used in line with corresponding objectives and ensures that the project is implemented in accordance with the contract. Ex-post evaluations can also be carried out according to a system with criteria for relevance, efficacy, efficiency, impact and sustainability.

Donor fiches (continued)

NAME OF INSTITUTION	**Council of Europe Development Bank (CEB)** (continued)
	Loans can be provided in different currencies. The maturity period is between five and 30 years depending of the project and the quality of the borrowers. The grace period is up to five years (in specific cases interest rate subsidies can be provided).
Funding conditions	Eligible countries are Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro Both public and private sectors are eligible for investment. In the case of private investment, eligible projects concerning the protection of the environment will be limited to SMEs. Investment projects undertaken on behalf of firms with the aim of building installations for processing solid and liquid waste and wastewater not produced by the firms themselves, or for generating clean, renewable energy shall be eligible regardless of the size of the beneficiary firm. The following types of environmental investments are eligible: projects funded by the CEB can concern urban infrastructure such as drinking water, electricity and gas supply networks; sewer networks; reduction and treatment of solid and liquid waste; purification and protection of surface and ground water; soil and ground water decontamination; protection from noise; production of renewable energy; reducing air pollution; prevention of natural or ecological disasters; protection and development of biodiversity; and cleaner means of transport and transport systems. In rural regions the CEB can also finance infrastructure such as: drinking water supply networks; electricity and gas supply networks; local transport systems; and irrigation networks. Projects involving the construction of retaining dams and related infrastructure for irrigation schemes are eligible where the following conditions are met: no forced transfer of populations; and negative environmental impact mastered. Infrastructure related to dams which do not meet these criteria may not be financed. Moreover, if the water course in question concerns several countries, the countries must all give their approval to the project. Loans are granted according to a series of specific criteria and depend on socio-economic impact of the projects, technical aspects, cost analysis, institutional capacity in terms of project management by the borrower, and possible environmental impact. Requirements of relevant Council of Europe conventions projects financed by the CEB must be subject to national/international invitations to tender in accordance with the procurement guidelines.
Additional requirements	Applications can be submitted directly to the CEB headquarters. Projects need to be communicated to the government of the respective country before submission. The application for loan is to be presented by the member states. The project presentation elaborates the socio-economic impact, the technical specifications, the plan for monitoring the project, and the financial plan including the rate of the loan and the guarantees provided. The CEB is able to provide technical assistance in the preparation of the project presentation file. Depending of the complexity of the project, the CEB is generally considered as quick enough in the process of considering the application. For further information, see the names of the country managers at <www.coebank.org>. Project applications should be provided in English or in French.

Donor fiches (continued)

NAME OF INSTITUTION	**European Bank for Reconstruction and Development (EBRD)**
Funding mechanism	The financial products available from EBRD are loans, equity investments and credit lines. The EBRD finances a maximum of 35 percent of the total capital for private and 70 percent for public sector projects. The maximum amount provided is EUR 250 million for private sector and the minimum investment size is EUR 5 million. Disbursements are made against approved contracted invoices, and the loan can be taken in euros or in US dollars. The interest rates of loans are market based rates (LIBOR + margin) reflecting project and country risk, plus a commitment fee of 0.5 percent annually on the undisbursed amount. The maturity period is up to 15 years. The grace period is negotiable, but limited to four years. Depending on the project risks, some security criteria from borrowers are required. Private sector borrowers are required to have insurance against certain risks and secure the loan with project assets. Certain fees and commissions are to be paid by the client such as front-end commission, a commitment fee, a loan conversion fee, prepayment, and cancellation and late payment fees. An up-front fee of 1 percent is used and standard banking financial debt coverage ratios are applied. Small projects are usually supported through financial intermediaries such as leasing facilities, local commercial banks and micro-business banks. These financial intermediaries are required to follow the investments criteria of the EBRD. They are, However, able to select projects independently.
Funding conditions	Eligible countries are: Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including Kosovo, which has a separate office. The following sectors are eligible for support: public (direct lending to municipalities without sovereign support is possible) and private. Projects in the public sector have to be initiated and negotiated via the governments. For private sector projects the project proponent can enter into direct dialogue with the EBRD. The type and condition of financial assistance provided by the EBRD is determined by the needs of the client and the specific situation of the sector and the region. The EBRD finances large, small and medium-sized private sector projects under different conditions. For large projects in the private sector, the EBRD provides an average of EUR 25 million for financing, ranging from EUR 5 to 250 million. The eligible types of investments projects are: water supply, wastewater collection and treatment, solid waste management, district heating, natural gas distribution, and urban public transport. The bank invests in municipal services, infrastructure projects, restructuring and privatisation. Project eligibility criteria require from the project economic viability, conformance with the EBRD's environmental standards, and resulting in benefits to the local economy. In the future the EBRD intends to increase its support for investments and actions aimed at fostering social cohesion and at improving living conditions in the SEE region. It will continue focusing on its priority sectors in close cooperation with the countries from the region and the international community.
Additional requirements	Submission of project ideas can be done via the internet or by contacting the local offices. The EBRD has access to Technical Assistance funding. Applications should be sent to the head office [Tel: (44-20) 7338-7168; Fax: (44-20) 7338-7380; E-mail: newbusiness@ebrd.com], or to the local offices. Project ideas from the private sector can be presented to the EBRD via the internet by filling out an online form at <www.ebrd.com/apply/large/index.htm>.

Donor fiches (continued)

NAME OF INSTITUTION	**European Investment Bank**
Funding mechanism	The European Investment Bank (EIB) gives either direct loans, or global loans through financial intermediaries (banks). The total funds available for SEE are roughly EUR 300-400 million per annum, while the funds available for environmental investments depend on the appropriateness of the projects, since there is no specific limit. Loans can be combined with grants to cover technical assistance from other bilateral or multilateral sources (e.g. with European Agency for Reconstruction grants). As a rule, the EIB funds maximum 50 percent of the total project cost. There is no specific limit on the maximum amount provided, while the minimum amount is EUR 5-10 million, depending on project packaging. In cases when the project cost exceeds EUR 25 million the borrower can agree directly with the EIB on the amount of the loan. The loan disbursement is based on physical project progress. The interest rate of the loan is a market based rate — London Inter-Bank Offered Rate (LIBOR) plus margin. The maturity period as a rule depends on the economic life of assets. It can be up to 25 years, while the grace period is fixed as a function of project construction period, typically from three to five years. The maturity period varies depending on the type of project. For the industrial sector it is 12 years; for infrastructure projects it can reach 20 years. For the construction phase of the projects, grace periods for the capital repayment can be granted. The standard IFI contract clauses are applicable, with no additional fees. Loans can be disbursed in various currencies depending on the needs of the borrowers, but the euro is preferred.
Funding conditions	Eligible countries are Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro. Both the public (direct lending to municipalities possible with sovereign support) and private sectors are eligible for support. Loans for small and medium-sized private enterprises are available via financial intermediaries. Private sector project proponents can turn to the financial intermediaries for venture capital and credits financed within global loans. The eligible types of investment projects are: water supply and sewerage wastewater collection and treatment; solid waste collection and treatment; and industrial pollution abatement facilities. For direct loans, the minimum project cost is EUR 10-20 million. A sovereign guarantee is required. No fees are charged on the applicant for processing the loan application. For high-risk or large-scale infrastructure priority projects, the EIB provides assistance in finding the most suitable financing options with the Structured Finance Facility. The facility offers a wise range of financial products, including loans and guarantees incorporating risk deriving from early operation and pre-completion, debt of shareholders and companies in restructuring.
Additional requirements	All projects are subject to a technical, economic, financial and environmental appraisal, and due diligence verification by the EIB, and a financing decision depends on the successful outcome of this process. Promoters both from the private and public sectors are able to request direct (individual) loans directly from the EIB's headquarters in Luxembourg.

NAME OF INSTITUTION	**World Bank (WB)**
Funding mechanism	The World Bank Group consists of the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA). These two organisations provide low-interest loans, interest-free credit, and grants to developing countries.

Donor fiches (continued)

NAME OF INSTITUTION	**World Bank (WB)** (continued)
	In addition, the International Finance Corporation (IFC) promotes private sector investment, the Multilateral Investment Guarantee Agency (MIGA) provides political risk insurance (guarantees) to investors in and lenders to developing countries, and the International Centre for Settlement of Investment Disputes (ICSID) settles investment disputes between foreign investors and their host countries. In South Eastern Europe, World Bank support is provided by the IDA or IBRD depending on the level of gross domestic product (GDP) and a number of other poverty indicators: • In Albania, IDA provides a mix of grants and IDA credits. • Kosovo (territory under UN interim administration) receives only IDA grants, but the allocation is small and therefore quickly used up. • Bosnia and Herzegovina is supported by IDA. • Serbia and Montenegro is in the process of changing from IDA to IBRD support; at present the country receives a mixture of support. • Croatia and the former Yugoslav Republic of Macedonia are supported by IBRD. The following financial products are available: IDA loans; IBRD loans; guarantees; grants for poverty reduction and economic development. Around 80 percent of the World Bank's lending is conducted in the form of investment loans. Investment loans can be obtained to finance goods, works and services in various sectors. Projects usually run for five to 10 years and include, inter alia, the development of public policy infrastructure, and the improvement of sanitation and water supply. The terms of disbursement are defined in the loan agreement and in some cases separately for specific project components. Within the investment loan category, project proponents can apply for specific investment loans, sector investment and maintenance loans, adaptable programme loans and learning and innovation loans. Technical assistance loans, financial intermediary loans, and emergency recovery loans are also available and can be tailored to the borrowers' needs. These loans can be obtained by the IBRD and the IDA. Another type of lending instrument is the development policy loan, which accounts for 20-25 percent of the total lending. This loan is disbursed quickly for short-term projects running from one to three years. Interest rates are: for IDA: interest free concessional lending, 0.75 percent service charge, 0.0-0.5 percent annual commitment fee on the undisbursed amount; for IBRD: rate equal to cost of funding plus 0.5-0.75 percent. The maturity period is: for IDA: 35-40 years; for IBRD: 12-15 years. The grace period is: for IDA: 10 years; for IBRD: three to five years. Co-financing is required from governments. A guarantee is not required if lending is to a government or its agencies.
Funding conditions	The World Bank has a variety of lending terms and instruments. The Ministry of Finance of the borrowing country chooses the instrument and it is not related to the technical details of a loan project. A creditworthiness and country assessment is performed when a new programming period commences for a country. Each country has its own programming cycle of three to four years. Every project is also tailored to the specific priority development needs of the beneficiary country. Eligible countries are Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, including Kosovo (territory under UN interim administration).

Donor fiches (continued)

NAME OF INSTITUTION	**World Bank (WB)** (continued)
	IDA lends to the public sector in low income countries. IBRD lends to the public sector in middle-income countries and creditworthy low-income countries. Priority focus is on supporting institutional reforms and policy development. The eligible types of investment projects are: water rehabilitation and reform; district heating; solid waste services; promoting clean water supply; and sanitation in rural areas. The loan is disbursed in specified installments after fulfilment of the pre-agreed conditions, such as passing reform legislation. Eligibility criteria for the loan include coordination with the International Monetary Fund (IMF), appropriate macroeconomic management and monitorable reform actions. This type of loan can be provided by IBRD and IDA. The World Bank provides grants to a limited extent for cooperation and innovation projects. The World Bank maintains several trust funds, which are separate from its own financial sources. The funds can provide grants for high-priority development projects, including post-conflict transition, debt relief and technical assistance. The World Bank coordinates the granting activities with the Development Grant Facility (DGF), which ensures that the grant-making is in line with the World Bank's strategy and establishes eligibility criteria.
Additional requirements	Contact the local offices to apply. The World Bank's main interlocutor is the Ministry of Finance, and therefore any request for WB funding needs to go through them.

Annex 7: **Contact Information for International Institutions**

Contact information for international institutions

ALBANIA		
Delegation of the European Commission to Albania Lutz Salzmann Head of Delegation	Rruga e Durresit 127-1 Laprake Tirana	Tel: (355-4) 228-320, (355-4) 228-479 Fax: (355-4) 230-752 E-mail: delegation-albania@cec.eu.int
EBRD Murat Yildiran Head of Office	Torre Drin Building 4th Floor Abdi Toptani Street Tirana	Tel: (355-42) 32-898 Fax: (355-42) 30-580
World Bank Office Ana Gjokutaj External Affairs Officer and NGO Liaison	Deshmoret e 4 Shkurtit 34 Tirana	Tel: (355-42) 40-587 Fax: (355-42) 40-590 E-mail: agjokutaj@worldbank.org
IFC Office c/o World Bank	Deshmoret e 4 Shkurtit 34 Tirana	Tel: (355-42) 30-017, 40-587, 40-588, 40-589 Fax: (355-42) 40-590
Swiss cooperation Office in Albania c/o Ambassade de Suisse	Rruga Brigada e VIII P.2/2/1 Tirana	Tel: (355-42) 40-102 Fax: (355-42) 40-103 E-mail: tirana@sdc.net
BOSNIA AND HERZEGOVINA		
Delegation of the European Commission to Bosnia and Herzegovina Michael Humpreys Head of Delegation	Dubrovacka 6 71000 Sarajevo	Tel: (387-33) 254-700 Fax: (387-33) 666-037 E-mail: delegation-bih@cec.eu.int
EBRD Aygen Yayikoglu Head of Office	4 Obala Kulina Bana 2nd Floor 71000 Sarajevo	Tel: (387-33) 667-945 Fax: (387-33) 667-950
World Bank Office Srecko Latal External Affairs Officer Goran Tinjic NGO Liaison	Hamdije Kresevljakovica 19 71000 Sarajevo	Tel: (387-33) 251-500, 251-509 Fax: (387-71) 440-108 E-mail: slatal@worldbank.org gtinjic@worldbank.org
IFC Office c/o World Bank	Hamdije Kresevljakovica 19 71000 Sarajevo	Tel: (387-71) 440-293 Fax: (387-71) 440-108

Contact information for international institutions (continued)

BOSNIA AND HERZEGOVINA (continued)

KfW Office Sarajevo Olaf Zymelka Director	Hasana Kikica 18 71000 Sarajevo	Tel: (387-33) 266-610 Fax: (387-33) 266-612 E-mail: KfW@KfW.ba
Swiss Cooperation Office Bosnia and Herzegovina	Pirusa 1 71000 Sarajevo	Tel: (387-33) 233-408 Fax: (387-33) 271-500 E-mail: sarajevo@sdc.net Web: www.sdc-seco.ba

CROATIA

Delegation of the European Commission to the Republic of Croatia Jacques Wunenburger Head of Delegation	Masarykova 1 10000 Zagreb	Tel: (385-1) 489-6500 Fax: (385-1) 489-6555 E-mail: delegation-croatia@cec.eu.int
ISPA Davor Cilic Assistant Minister Ministry of Foreign Affairs and European Integration Directorate for Coordination of EU Assistance and Cooperation Programmes	Petreticev trg 2 10000 Zagreb	Tel: (385-1) 459-9360 Fax: (385-1) 459-9460 E-mail: davor.cilic@mei.hr
EBRD Charlotte Ruhe Head of Office	Miramarska 23 3rd Floor 10000 Zagreb	Tel: (385-1) 600-0310 Fax: (385-1) 619-7218
World Bank Office Mirjana Milic External Affairs Officer and NGO Liaison	Trg. J.F. Kennedya 6b 3rd Floor 10000 Zagreb	Tel: (385-1) 238-7222 Fax: (385-1) 238-7200 E-mail: mmilic@worldbank.org
IFC Office c/o World Bank	Trg. J.F. Kennedya 6b 3rd Floor 10000 Zagreb	Tel: (385-1) 238-7222 Fax: (385-1) 238-7200

FORMER YUGOSLAV REPUBLIC OF MACEDONIA

EAR Edmond Ademi Information Officer	Makedonia 11 1st Floor 1000 Skopje	Tel: (389-2) 328-6700 Fax: (389-2) 328-6749 E-mail: Edmond.ademi@ear.eu.int
EBRD Kenji Nakazawa Head of Office	Makosped building Makedonija str. no. 19 3rd Floor 1000 Skopje	Tel: (389-2) 329-7800 Fax: (389-2) 323-1238
World Bank Office Denis Boskovski External Affairs Officer and NGO Liaison	34 Leninova Street 1000 Skopje	Tel: (389-2) 117-159 Fax: (389-2) 117-627 E-mail: dboskovski@worldbank.org
IFC Office c/o World Bank	34 Leninova Street 1000 Skopje	Tel: (389-2) 117-159 Fax: (389-2) 117-627
KfW Office Skopje Christian Lutke Wostman Director	Ul. Maksim Gorki N. 1/6 1000 Skopje	Tel: (389-2) 310-9241 Fax: (389-2) 321-2466 E-mail: kfw@kfw.org.mk

Contact information for international institutions (continued)

Swiss Cooperation Office Macedonia c/o Embassy of Switzerland Bureau for Cooperation and Consular Affairs	Maksim Gorki Street 19 1000 Skopje	Tel: (389-2) 310-3340 Fax: (389-2) 310-3341 E-mail: skopje@sdc.net

SERBIA AND MONTENEGRO

EAR Montenegro Dragan Mugosa Information Officer	Urb. Parcel 137 Gorica C 81000 Podgorica	Tel: (381-81) 406-600 Fax: (381-81) 231-742 E-mail: dragan.mugosa@ear.eu.int
EAR Serbia John White Spokesperson	Vasina 2-4 11000 Belgrade	Tel: (381-11) 302-3400 Fax: (381-11) 302-3455 E-mail: john.white@ear.eu.int
EBRD Dragica Pilipovic-Chaffey Country Director	Genex Business Centre Unit B22 Vladimira Popovica Street Novi Beograd 11070	Tel: (381-11) 311-3201 Fax: (381-11) 311-4571
World Bank Office Vesna Kostic External Affairs Officer	Bulevar Kralja Aleksandra 86-90 11000 Belgrade	Tel: (381-11) 302-3723 Fax: (381-11) 302-3732 E-mail: vkostic@worldbank.org
PPC Municipal and Environmental Projects for the Western Balkans Region: Gaetano Massara, PPC Officer/Associate Banker Belgrade EBRD Resident Office		Tel: (381-11) 311-3201 Fax: (381-11) 311-4571 E-mail: MassaraG@ebrd.com
KfW Office Belgrade Johannes Feist Director	Zupana Vlastimira 6 11000 Belgrade	Tel: (381-11) 367-1273 Fax: (381-11) 666-544 E-mail: kfwbelgrade@kfw.co.yu
Swiss Cooperation Office Serbia and Montenegro	Kneza Mihaila 10/IV 11000 Belgrade	Tel: (381-11) 328-1669; (381-11) 328- 2220 E-mail: belgrad@sdc.net

KOSOVO (territory under UN administration)

EAR Nurten Demiri Information Officer	P.O. Box 200 38000 Pristina	Tel: (381-38) 513-1200 Fax: (381-38) 249-963 E-mail: nurten.demiri@ear.eu.int
EBRD Kenji Nakazawa Acting Head of Office	Procredit Bank Building Skenderbeu Street 38000 Pristina	Tel: (381-38) 248-153 Fax: (381-38) 248-152
World Bank Office Mirlinda Gorcaj External Affairs Assistant	35 Tirana Street 38000 Pristina	Tel: (381-38) 249-459 Fax: (381-38) 249-780 E-mail: mgorcaj@worldbank.org
Swiss Cooperation Office Kosovo	BANKKOS Building 4th floor Mother Theresa Avenue 49 38000 Pristina	Tel: (381-38) 548-091, (381-38) 548-092 Fax: (381-38) 548-096 E-mail: sdc@pri.rep.admin.ch Web: www.swisscooperation-kosovo.ch

Contact information for international institutions (continued)

OFFICES OF INTERNATIONAL INSTITUTIONS OUTSIDE SEE		
European Agency for Reconstruction (EAR) Headquarters Benjamin Atkins Acting Head of Information and Communication Unit	Egnatia 4 54626 Thessaloniki Greece	Tel: (30-2310) 505-100 Fax: (30-2310) 505-172 E-mail: benjamin.atkins@ear.eu.int
DABLAS Henriette Faergemann	Av. De Beaulieu 9 Commission Europeenne 1160 Brussels Belgium	Tel: (32-2) 296-0435 Fax: (32-2) 299-4123 E-mail: henriette.faergemann@cec.eu.int Web: http://europa.eu.int/comm/environment/enlarg/dablas_en.htm
European Bank for Reconstruction and Development (EBRD) Headquarters	One Exchange Square London EC2A 2JN United Kingdom	Tel: (44-20) 7338-6000 Fax: (44-20) 7338-6100 Web: www.ebrd.org
EBRD Project Enquiries not Related to Procurement Bruno Balvanera Head of Business Development		Tel: (44-20) 7338-7168 Fax: (44-20) 7338-7380 E-mail: projectenquiries@ebrd.com, newbusiness@ebrd.com
World Bank (WB) Headquarters	1818 H Street, N.W. Washington, DC 20433 USA	Tel: (1-202) 473-1000 Fax: (1-202) 477-6391 Web: www.worldbank.org
European Investment Bank (EIB) Headquarters	100, boulevard Konrad Adenauer L-2950 Luxembourg	Tel: (352) 43-791 Fax: (352) 437-704 E-mail: info@eib.org
EIB Information and Communications Department Balkan Countries (BLK) Helen Kavvadia		Tel: (352) 4379-3146 (352) 4379-3134 Fax: (352) 4379-3189 E-mail: h.kavvadia@eib.org Web: www.eib.org
Council of Europe Developing Bank (CEB) Research and Analysis Department General Directorate for Loans	55 avenue Kleber F-75116 Paris	Tel: (33-1) 4755-5500 Fax: (33-1) 4755-3752 Web: www.coebank.org
Infrastructure Steering Group (ISG) Office for South East Europe European Commission/World Bank	17, rue Montoyer 1000 Brussels Belgium	Tel: (32-2) 504-0990 Fax: (32-2) 504-0999 Web: www.seerecon.org/infrastructure
Project Preparation Committee (PPC) Environmental projects Jean-Marie Frentz PPC Officer/Environmental Specialist		Tel: (44-20) 7338-6541 Fax: (44-20) 7338-6848 E-mail: frentzj@ebrd.com Web: www.ppcenvironment.org
PPC Energy Projects Jan-Willem van de Ven PPC Officer		Tel: (44-20) 7338-7821 Fax: (44-20) 7338-6942 E-mail: vandevej@ebrd.com
PPC Secretariat Jeanette Baartman Interim Executive Secretary		Tel: (44-20) 7338-6661 Fax: (44-20) 7338-6848 E-mail: BaartmaJ@ebrd.com
United Nations Environment Programme Finance Initiative (UNEP-FI) Regina Kessler		E-mail: regina.kessler@unep.ch Web: www.unepfi.org

Contact information for international institutions (continued)

BILATERAL DONORS		
AUSTRIA		
Austrian Development Agency (ADA)	Zelinkagasse 2 1010 Wien	Tel: (43-1) 903-990 Fax: (43-1) 9039-9290 E-mail: programme@ada.gv.at Web: www.ada.gv.at
CZECH REPUBLIC		
Ministry of the Environment	Vrsovicka 65 100 10 Prague 10	Tel: (420-067) 122-089 Fax: (420-267) 311-949 E-mail: pastvinsky@env.cz Web: www.env.cz
DENMARK		
Ministry of Foreign Affairs of Denmark (MoFA of Denmark)	Asiatisk Plads 2 DK-1488 Copenhagen K	Tel: (45-33) 920-000 Fax: (45-32) 540-533 E-mail: um@um.dk Web: www.um.dk/da/forside
MoFA of Denmark Neighbourhood Programme Department	Asiatisk Plads 2 DK-1488 Copenhagen K	Tel: (45-33) 921-850 Fax: (45-33) 921-853 E-mail: nab@um.dk
GERMANY		
Federal Ministry for the Environment, Nature Protection and Nuclear Safety (BMU) Jurgen Keinhorst Head of Division, Cooperation with Central and Eastern European Countries and New Independent States	Alexanderplatz 6 10178 Berlin	Fax: (49-1888) 305-4375 E-mail: juergen.keinhorst@bmu.bund.de Web: www.bmu.de
Federal Ministry for the Economic Cooperation and Development (BMZ)	Adenauerallee 139-141 53113 Bonn or Tresemann str. 94 10963 Berlin	Tel: (49-18) 885-350 Fax: (49-18) 88-535, 3500 E-mail: info@bmz.bund.de
KfW Bankengruppe (Frankfurt)	Palmengartenstrasse 5-9 60325 Frankfurt am Main	Tel: (49-69) 74-310 Fax: (49-69) 7431-2944
German Development Bank – KfW Entwicklungsbank (Frankfurt)		Tel: (49-69) 7431-4260 Fax: (40-69) 7431-3363 E-mail: info@kfw-Entwicklungsbank.de
German Development Bank – KfW Bankengruppe (Berlin Branch)	Charlottenstrasse 33/33a 10117 Berlin	Tel: (49-30) 202-640 Fax: (49-30) 20264-5188
German Development Bank – KfW Entwicklungsbank (Berlin)		Tel: (49-30) 2026-45828 Fax: (49-30) 2026-45920 E-mail: kfw.fz-berlin@kfw.de www.kfw-entwicklungsbank.de/EN

Contact information for international institutions (continued)

GREECE		
Ministry of Foreign Affairs	5 Vassilissis Sophias Av 10671 Athens	Tel: (210) 368-1000, 368-2000, 368-3000 Fax: (210) 368-2474 E-mail: cio@mfa.gr Web: www.mfa.gr
ITALY		
Italian Ministry for Environment and Territory (IMET) DG Environmental Research and Development	Via Cristoforo Colombo 44 00147 Rome	Tel: (39-6) 5722-8101 Fax: (39-6) 5722-8175 E-mail: pia-sdg@minambiente.it Web: www.minambiente.it
IMET Task Force for Central and Eastern Europe	Andre Nikolica 25a 11000 Belgrade Serbia	Tel: (381-11) 306-7876 Fax: (381-11) 265-3793 E-mail: hauser.martina@minambiente.it
JAPAN		
Japanese International Cooperation Agency (JICA) JICA Austria Office	Dr. Karl Lueger-Ring 10 5th Floor A-1010 Wien Austria	Tel: (43-1) 315-6565 Fax: (43-1) 315-6566 E-mail: jicaat@jica.go.jp Web:www.jica.go.jp/austria/index.html
NETHERLANDS		
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Annex 8: **Data Used in Methodology**

TABLE 37

CARDS Programme allocation for 2002-2004 (in million euro)

COUNTRY	ALLOCATIONS	2002	2003	2004	TOTAL
ALBANIA	Total allocation	44.9	46.5	58.5	**149.9**
	Environmental allocations (Focal areas considered in the annual programmes: environment, natural resources)	4	0	7	**11**
	Environmental investment allocations	0.9	0	6	**6.9**
BOSNIA AND HERZEGOVINA	Total allocation	71.9	63	72	**206.9**
	Environmental allocation (Focal areas considered in the annual programmes: environment, natural resources)	6.5	10.1	1.4	**18**
	Environmental investment allocation	0	10.1	0	**10.1**
CROATIA	Total allocation	59	62	81	**202**
	Environmental allocation (Focal areas considered in the annual programmes: environment, natural resources)	3.6	3.7	3.8	**11.1**
	Environment investment allocation	0	0	0	**0**
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	Total allocation	37.5	38.5	55.5	**131.5**
	Environmental allocation (Focal areas considered in the annual programmes: environment/development of local infrastructure	14	10	10.5	**34.5**
	Environmental investment allocation	0	9	8.5	**17.5**

TABLE 37

CARDS Programme allocation for 2002-2004 (in million euro) (continued)

COUNTRY	ALLOCATIONS	2002	2003	2004	TOTAL
SERBIA AND MONTENEGRO: Serbia	Total allocation	179.7	229	212	**620.7**
	Environmental allocation (Focal areas considered in the annual programmes: environment/energy	50.5	76.1	54	**180.6**
	Environmental investment allocation	50	68.1	54	**172.1**
SERBIA AND MONTENEGRO: Montenegro	Total allocation	13	13.5	18	**44.5**
	Environmental allocation (Focal areas considered in the annual programmes: environment/energy/public administration reform, 2004)	4.3	4	5	**13.3**
	Environmental investment allocation	3.3	4	5	**12.3**
Kosovo (territory under UN administration)	Total allocation	137.9	49	75.4	**262.3**
	Environmental allocation (Focal areas considered in the annual programmes: environment/energy	21	4.5	14.5	**40**
	Environmental investment allocation	18.6	0	14.5	**33.1**
CARDS Regional	Total allocation*	43.5	31.5	0	**75**
	Environmental allocation (Focal areas considered in the Regional Multi-annual Indicative Programme: European Networks for Sustainable Development/Regional Infrastructure Development)	10.7	4.1	0	**14.8**

Source: CARDS Annual Programmes 2002, 2003, 2004, CARDS Regional Multi-annual Indicative Programme 2002-2004

* EUR 75 million, excluding regional funds for integrated border management, was allocated from the CARDS regional envelope for the period of 2002-2004 for the five South Eastern European countries.

TABLE 38

Codes used by the Development Assistance Committee to categorise environmental commitments

14010	Water resources and administrative management
14015	Water resources protection
14020	Water supply and sanitation — large systems
14030	Water supply and sanitation — small systems
14050	Waste management/disposal
14081	Education and training in water supply and sanitation
23030	Power generation/renewable resources
23066	Geothermal energy
23067	Solar energy
23068	Wind power
23069	Ocean power
23070	Biomass
23081	Energy education/training
23082	Energy research
31130	Agricultural land resources
31140	Agricultural water resources
31192	Plant and post-harvest protection and pest control
31210	Forestry policy and administrative management
31220	Forestry development
31281	Forestry education/training
31282	Forestry research
31291	Forestry service
31320	Fishery development
41010	Environmental policy and administrative management
41020	Biosphere protection
41030	Biodiversity
41040	Site preservation
41050	Flood prevention/control
41081	Environmental education/training
41082	Environmental research
43030	Urban development
43040	Rural development

Source: Organisation for Economic Co-operation and Development (OECD) 2002 from Donge, Kato and Maurer, 2001. *An Environmental Analysis of Recent Trends in International Financial Flows with a Special Focus on Japan.*

TABLE 39

Sector aggregates and their purpose codes

Sector	Purpose codes
1. Water	14010, 14015, 14020, 14030
2. Waste	1450
3. Energy	23030, 23066, 23067, 23068, 23069, 23070, 23081, 23082
4. Agriculture/forestry/fisheries	31130, 31140, 31192, 31210, 31220, 31281, 31282, 31291, 31320
5. Environmental policy and management	41010
6. Biodiversity/site preservation	41020, 41030, 41040, 41050
7. Environmental education and research	41081, 41082, 14081
8. Urban development	43030
9. Rural development	43040

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European Investment Bank (EIB) <www.eib.org>

European Commission Community Assistance for Reconstruction, Development and Stabilisation (CARDS) <http://europa.eu.int/comm/enlargement/cards/index_en.htm>

European Commission Instrument for Pre-Accession Assistance (IPA) <http://europa.eu.int/scadplus/leg/en/lvb/e50020.htm>

European Commission Instrument for Structural Policies for Pre-Accession (ISPA) <http://europa.eu.int/comm/regional_policy/funds/ispa/ispa_en.htm>

Infrastructure Steering Group (ISG) <www.seerecon.org>

KFW Development Bank <www.kfw-entwicklungsbank.de/EN>

Project Preparation Committee (PPC) <www.ppcenvironment.org>

U.S. Trade and Development Agency (USTDA) <www.tda.gov>

United Nations Environment Programme - Finance Initiative (UNEP-FI) <www.unepfi.org>

World Bank (WB) <www.worldbank.org>

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The REC was established in 1990 by the United States, the European Commission and Hungary. Today, the REC is legally based on a charter signed by the governments of 28 countries and the European Commission, and on an international agreement with the government of Hungary. The REC has its head office in Szentendre, Hungary, and country offices and field offices in 16 beneficiary countries, which are: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Poland, Romania, Serbia and Montenegro, Slovakia, Slovenia and Turkey.

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